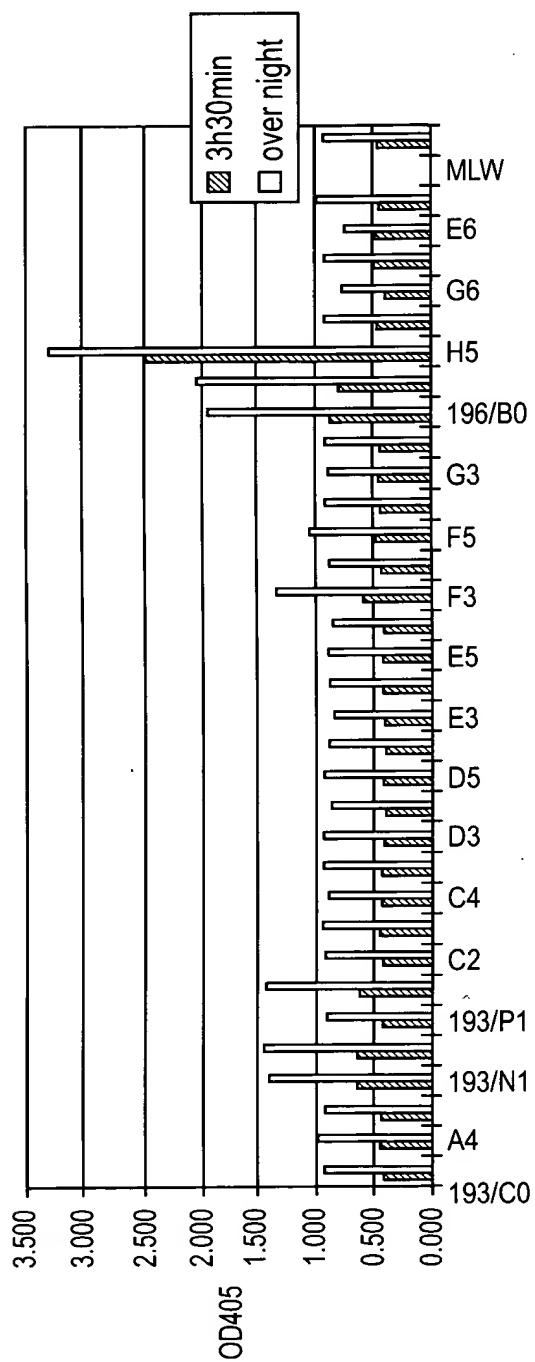




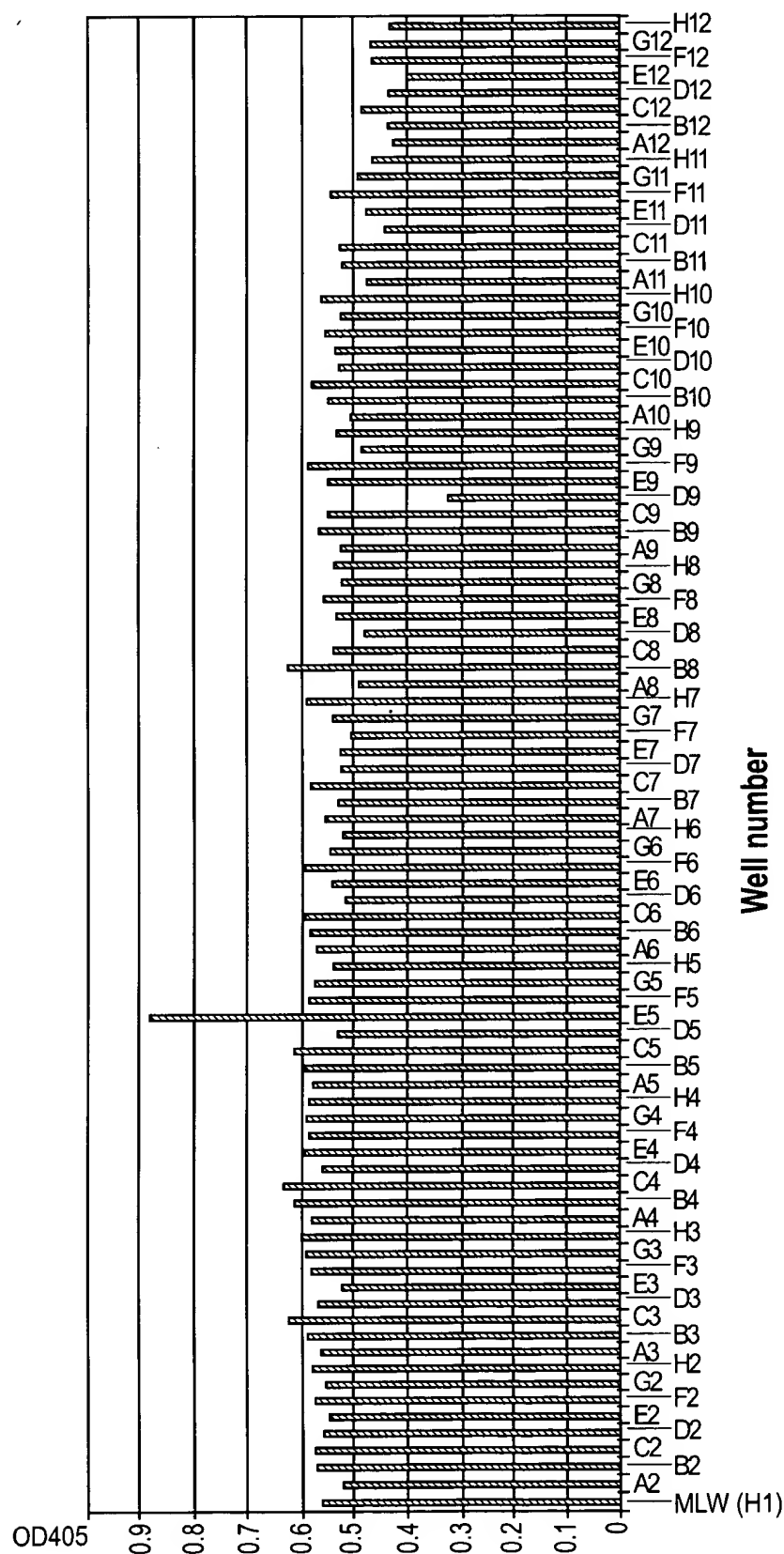
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clone #

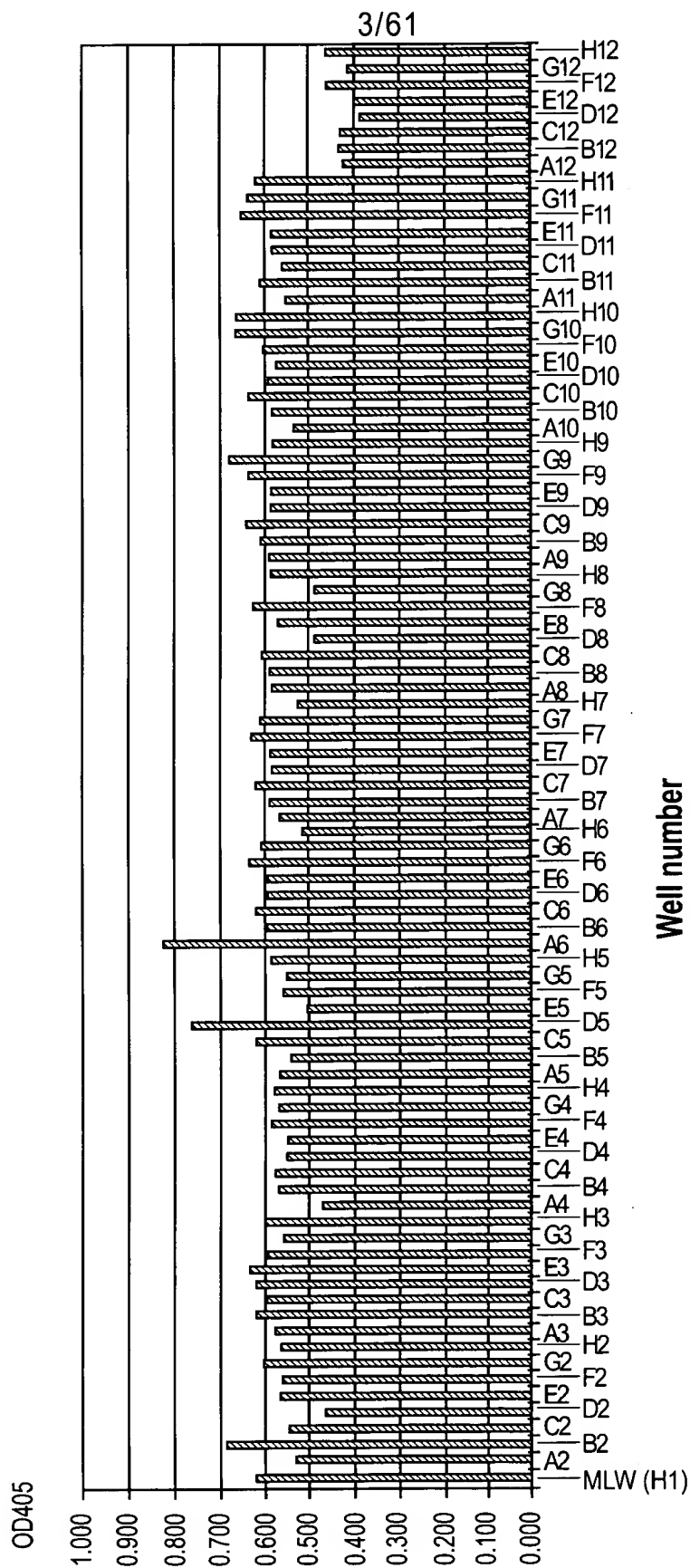
FIG. 1

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Well number

FIG. 2



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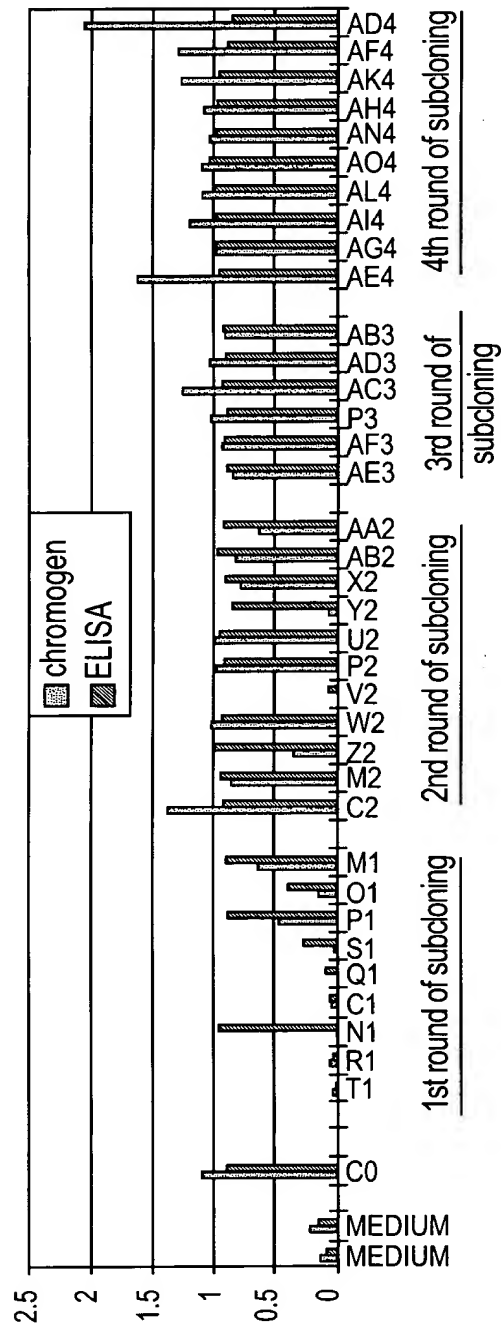


FIG. 4

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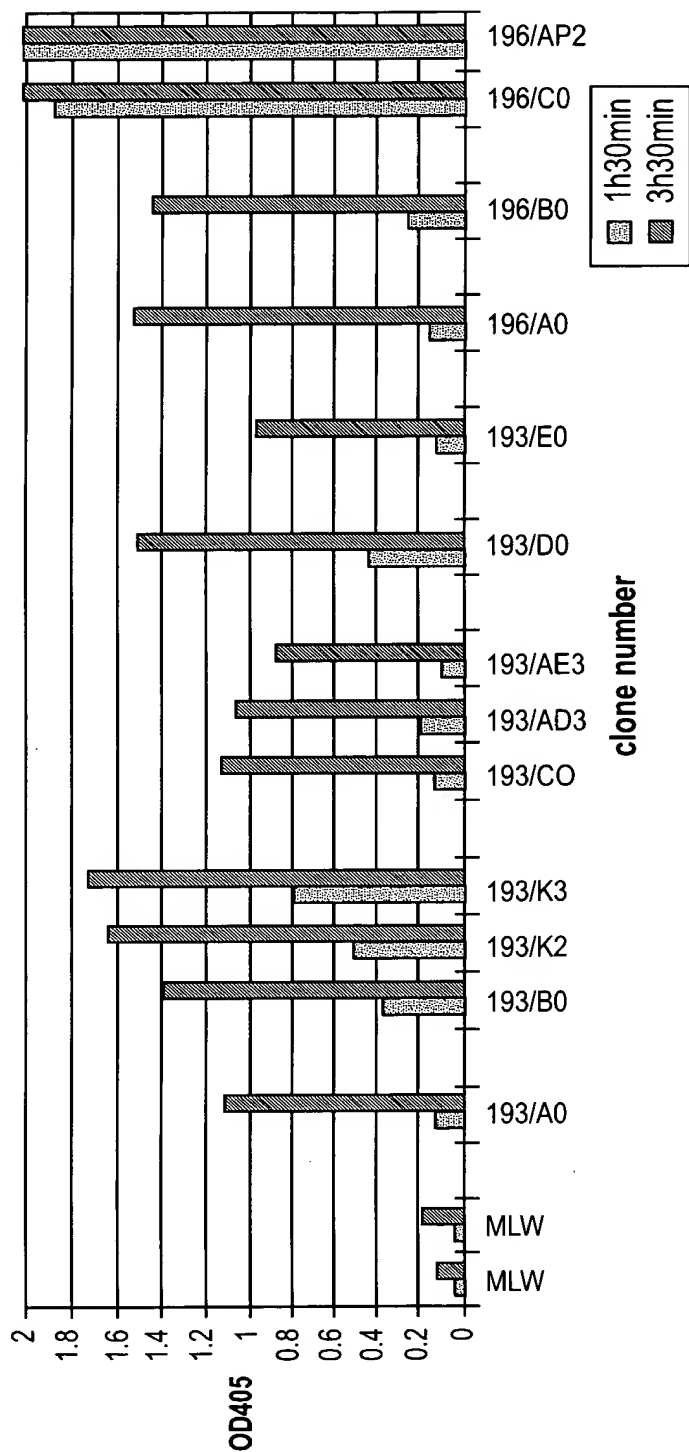


FIG. 5

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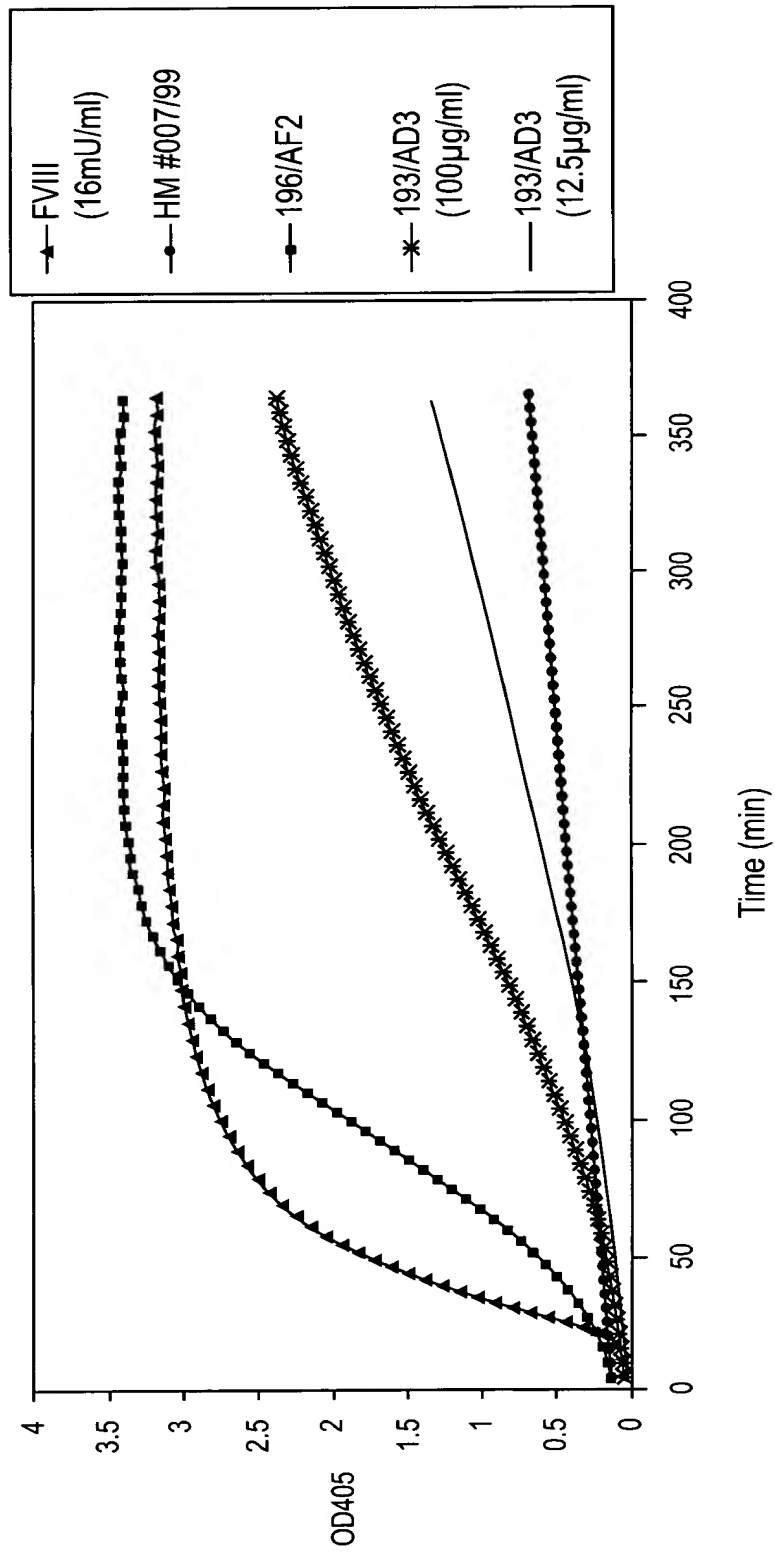


FIG. 6A

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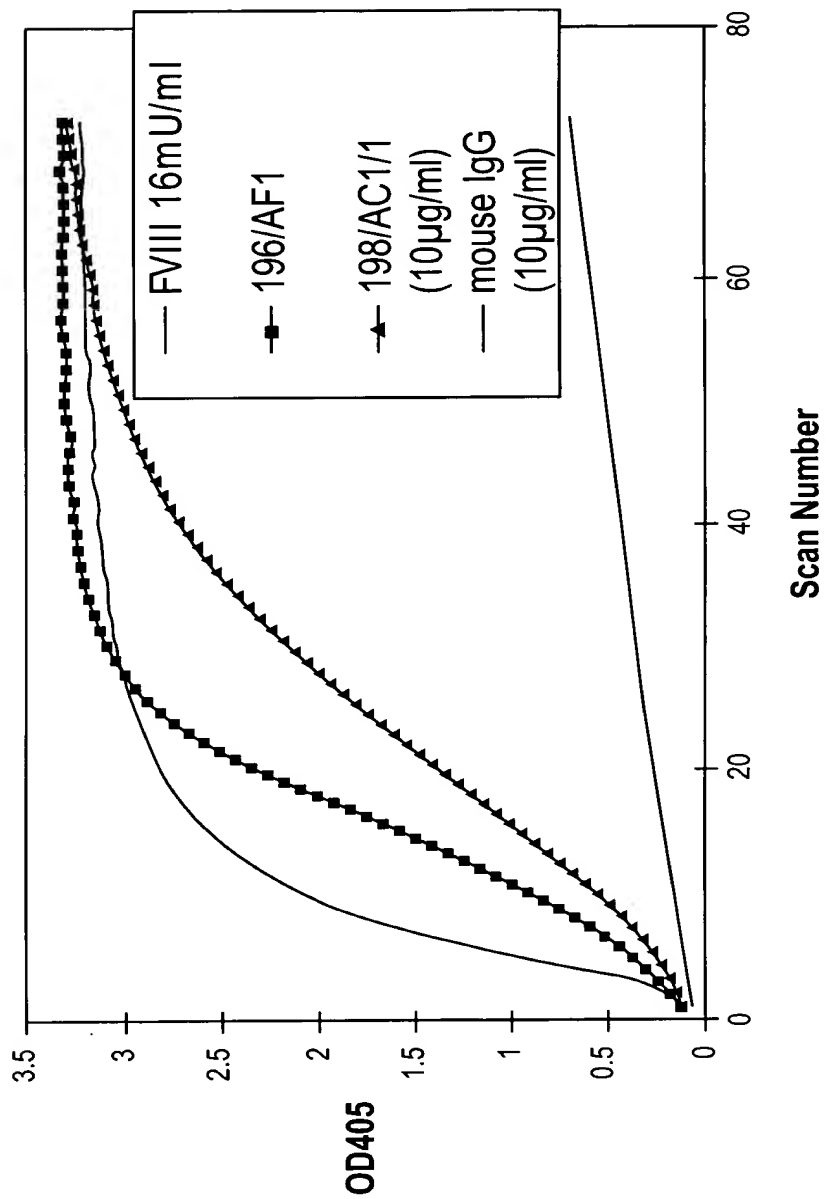


FIG. 6B

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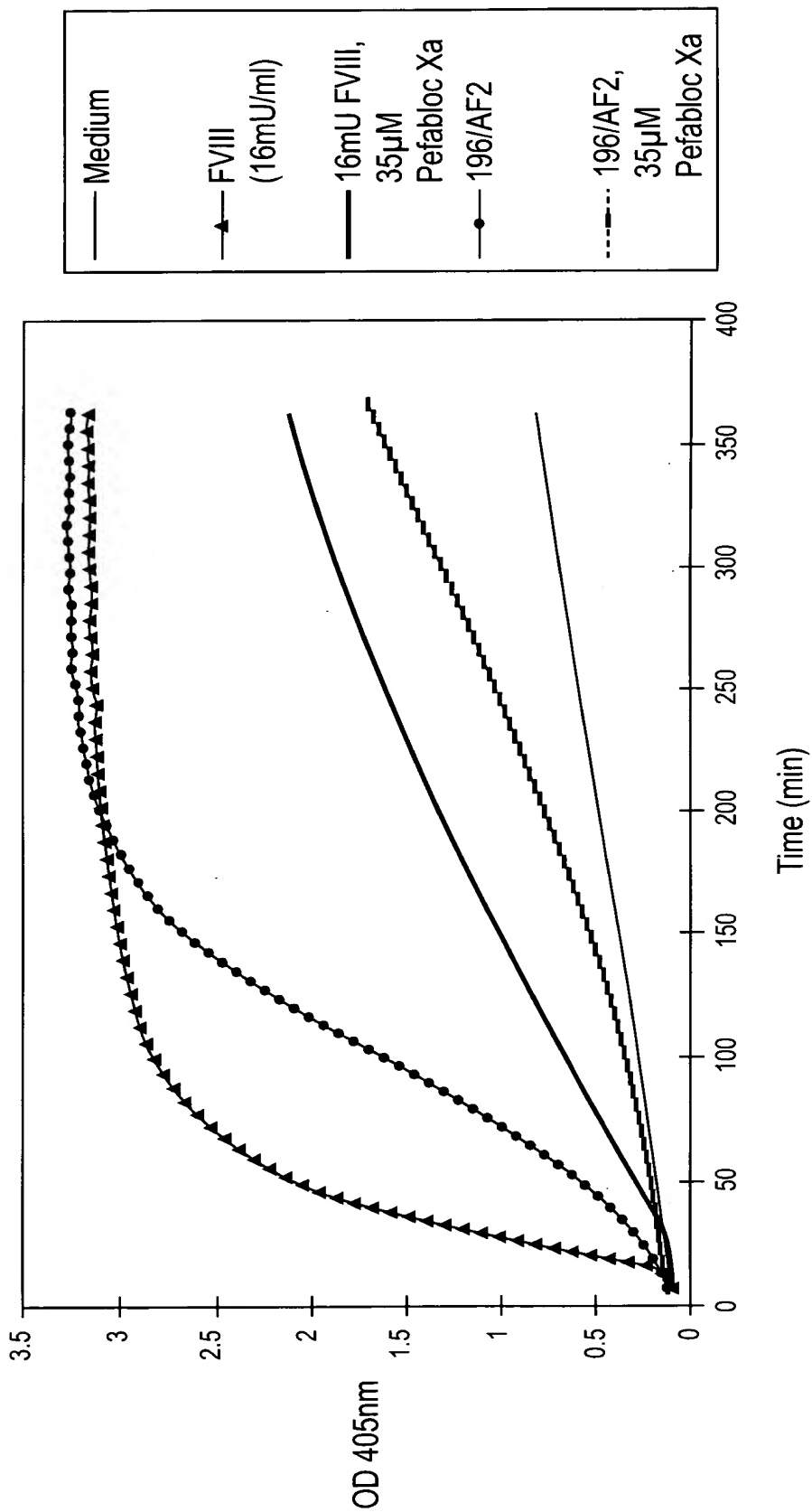


FIG. 7A

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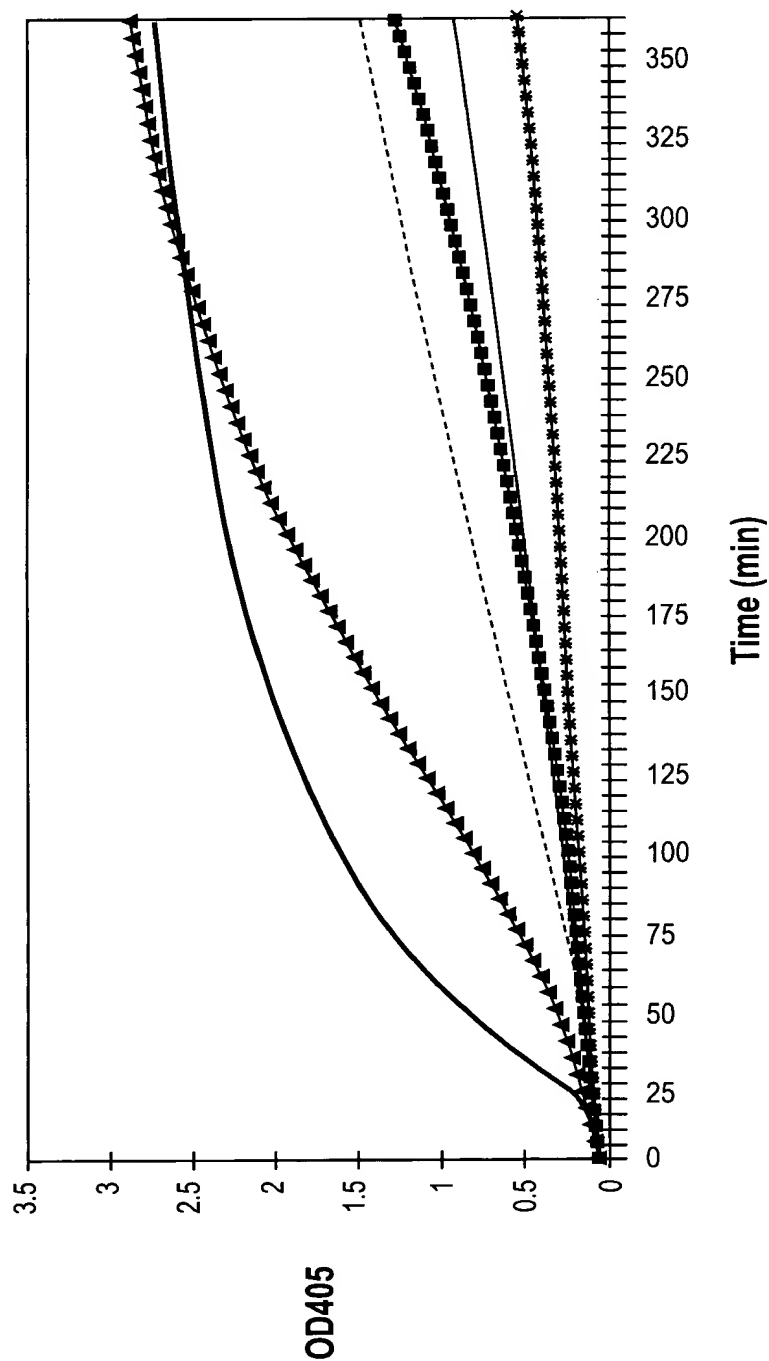
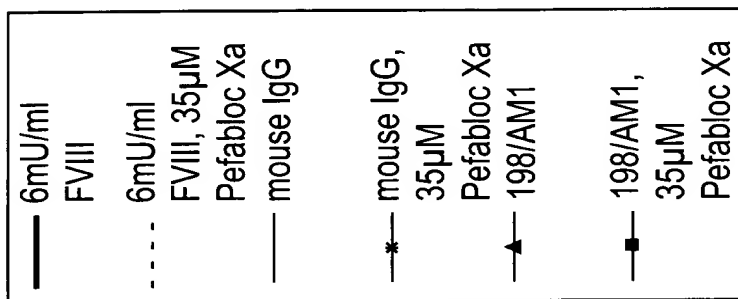
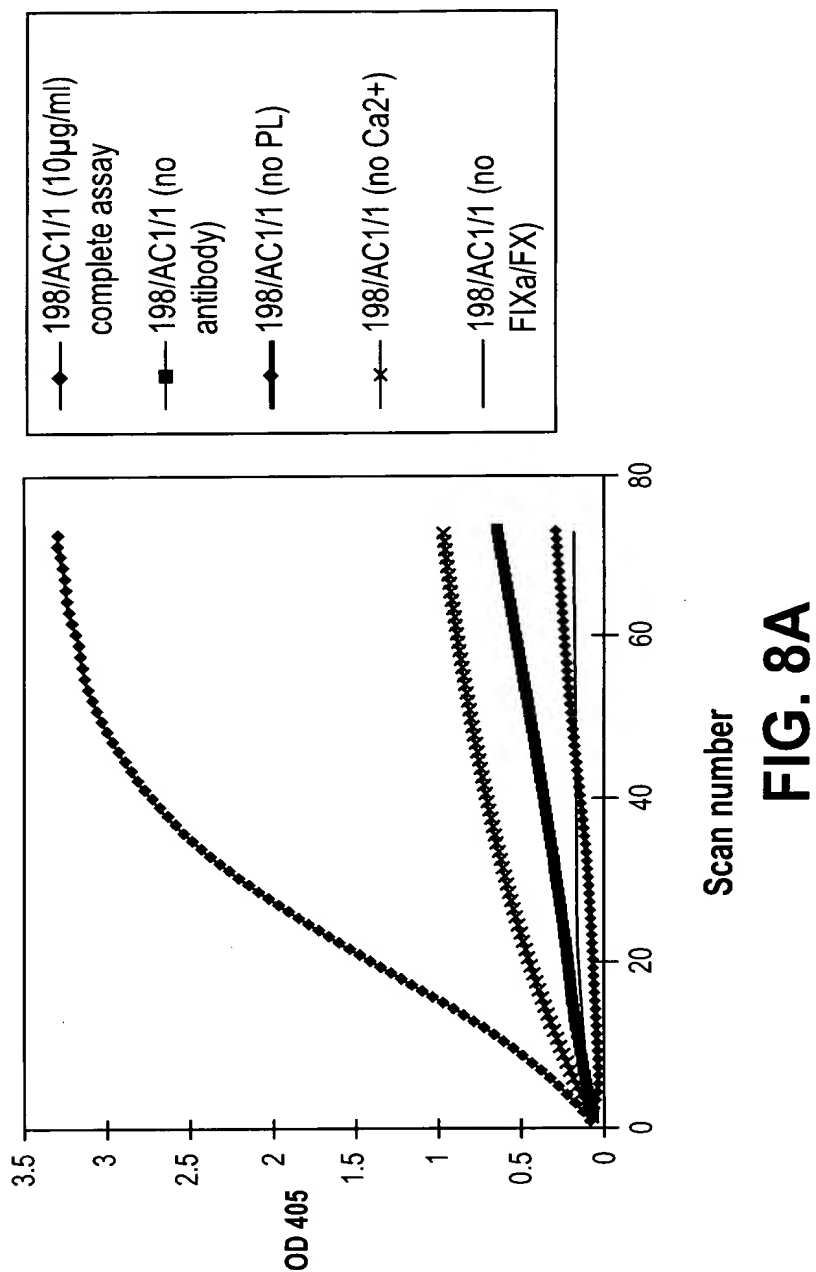


FIG. 7B

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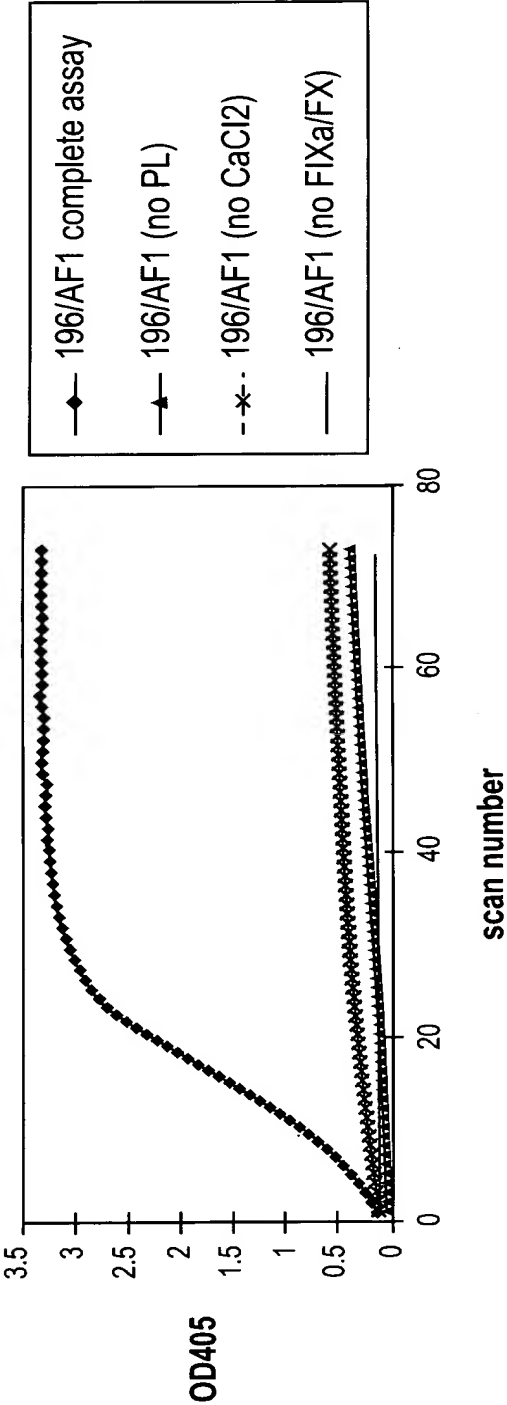


FIG. 8B

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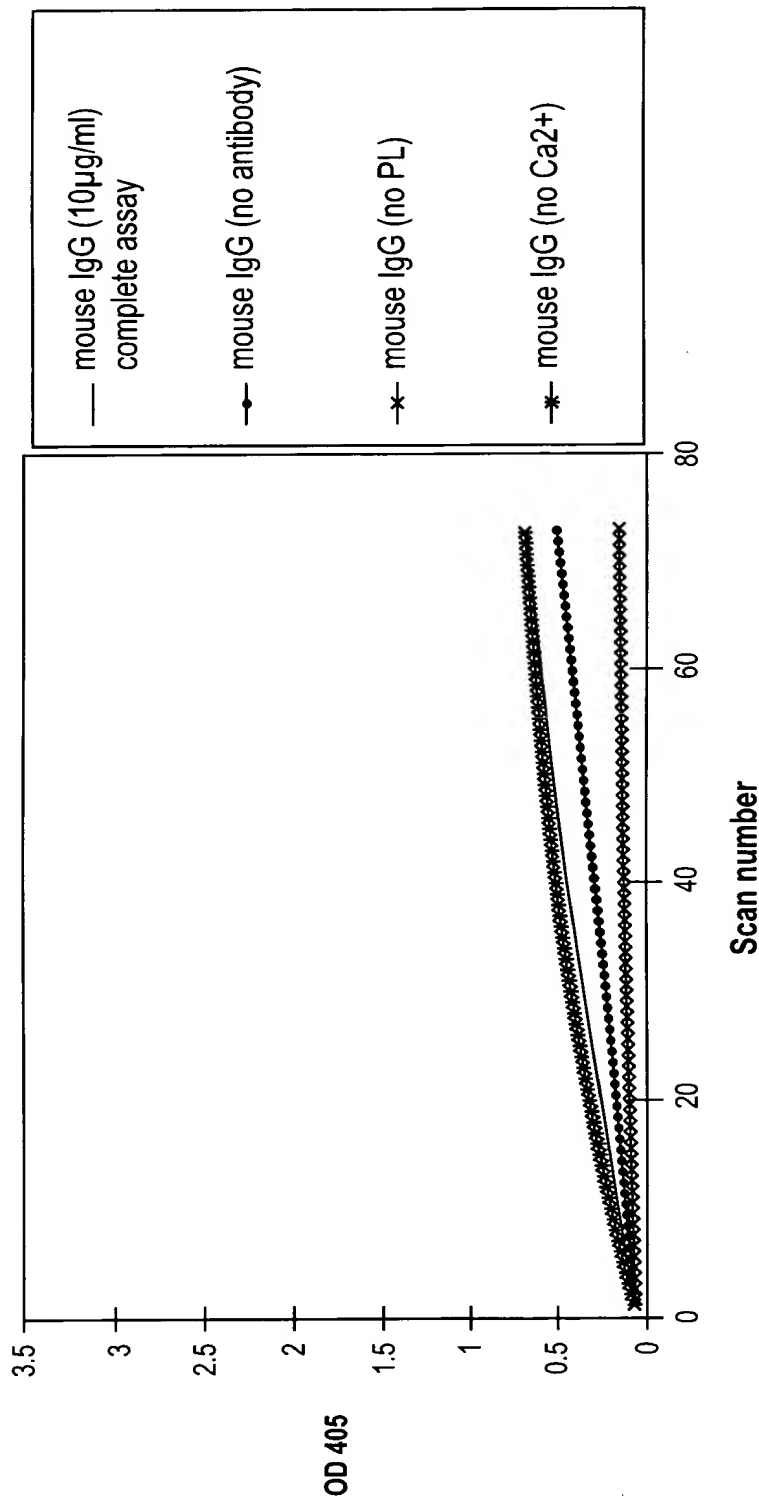


FIG. 8C

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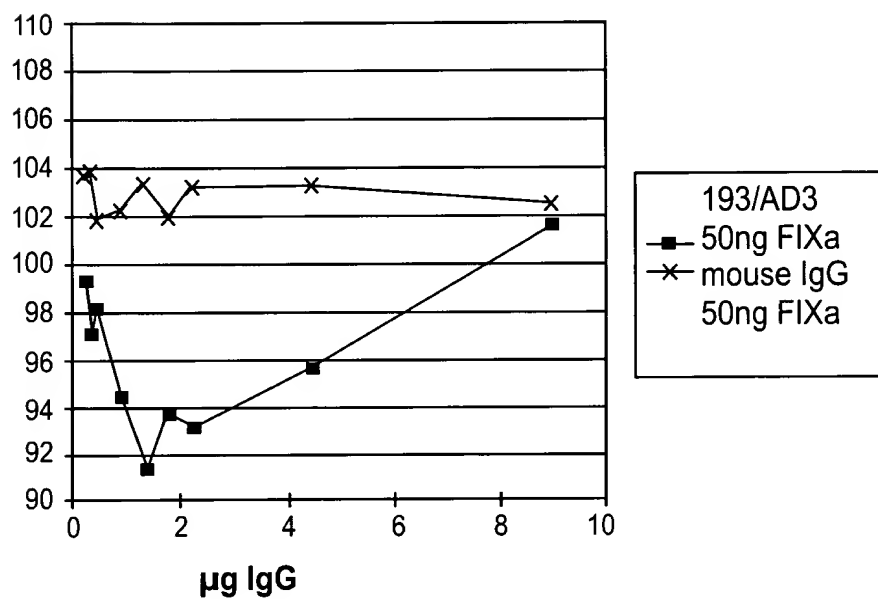


FIG. 9

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clotting time
(sec)

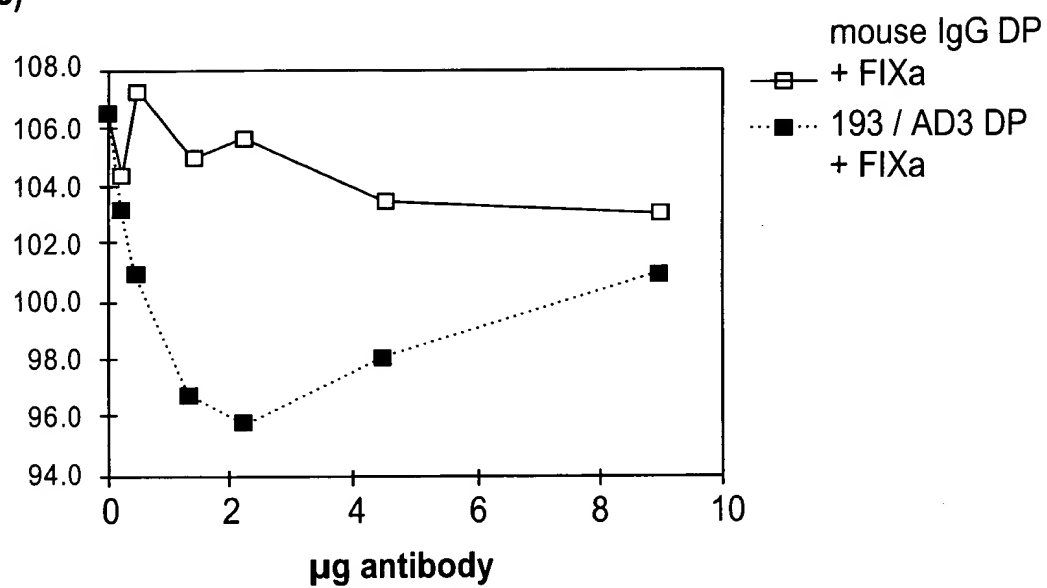


FIG. 10A

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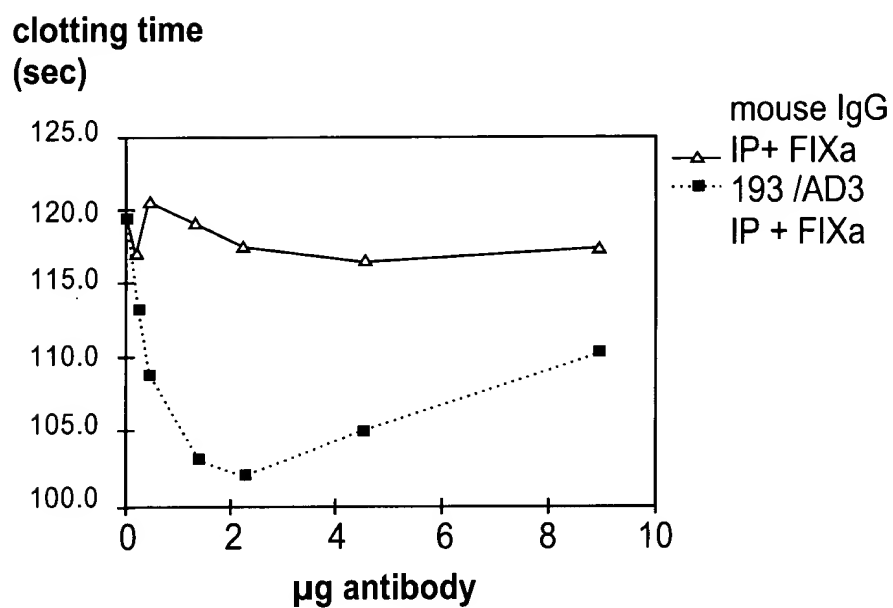


FIG. 10B

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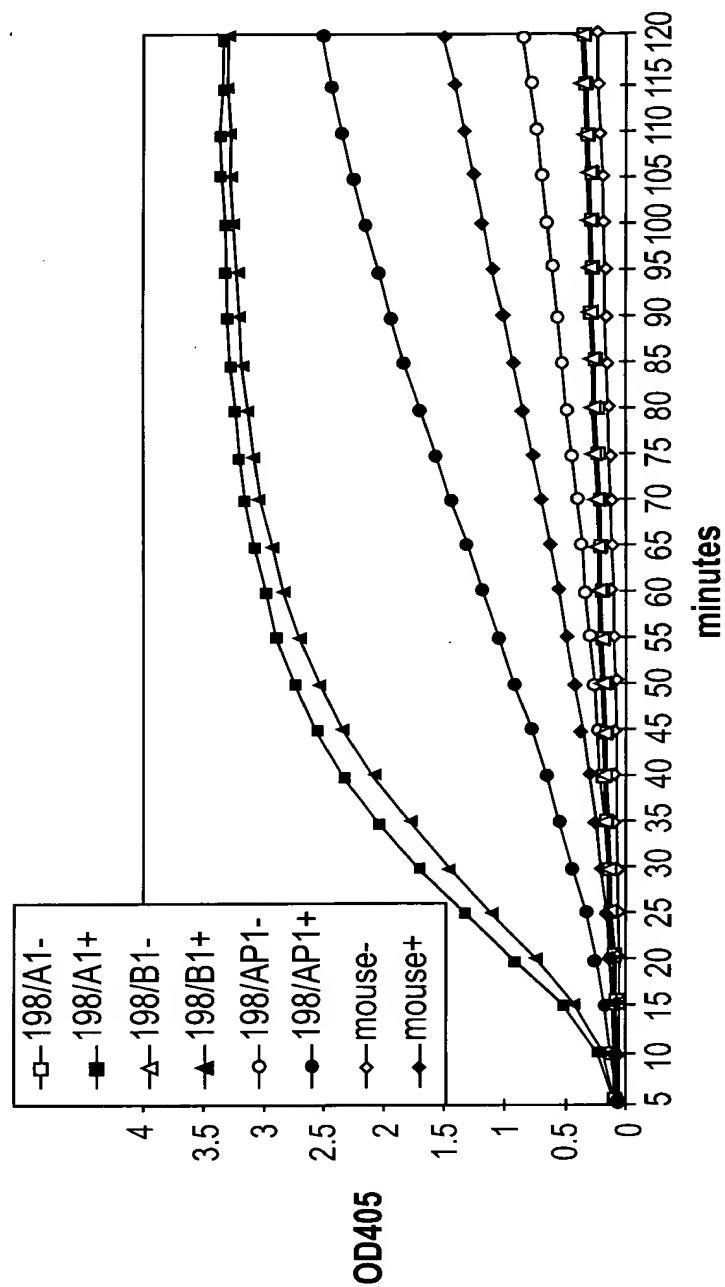


FIG. 11

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Mouse V_H back primers (containing SfiI-site):

VH1BACK-SfiI	5' C ATG CCA TGA CTC GCG GCC CAG CCG GCC ATG GCC SAG GTS MAR CTG CAG SAG TCW GG 3' (SEQ.ID.NO. 50)
VH1BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAG GTG CAG CTT CAG GAG TCA GG 3' (SEQ.ID.NO. 51)
VH2BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAT GTG CAG CTT CAG GAG TCR GG 3' (SEQ.ID.NO. 52)
VH3BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC CAG GTG CAG CTG AAG SAG TCA GG 3' (SEQ.ID.NO. 53)
VH4/6BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAG GTY CAG CTG CAR CAR TCT GG 3' (SEQ.ID.NO. 54)
VH5/9BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC CAG GTY CAR CTG CAG CAG YCT GG 3' (SEQ.ID.NO. 55)
VH7BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAR GTG AAG CTG GTG GAR TCT GG 3' (SEQ.ID.NO. 56)
VH8BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAG GTT CAG CTT CAG CAG TCT GG 3' (SEQ.ID.NO. 57)
VH10BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAA GTG CAG CTG KTG GAG WCT GG 3' (SEQ.ID.NO. 58)
VH11BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC CAG ATC CAG TTG CTG CAG TCT GG 3' (SEQ.ID.NO. 59)

FIG. 12-1

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Mouse J_H forward primers (containing 1/2 linker-sequence and AscI-site):

VH1FOR2LiAsc	5' ACC GCC AGA GGC GCG CCC ACC TGA ACC GCC TCC ACC TGA GGA GAC GGT GAC CGT GGT CCC TTG GCC CC 3' (SEQ.ID.NO. 60)
JH1FORLiAsc	5' ACC GCC AGA GGC GCG CCC ACC TGA ACC GCC TCC ACC TGA GGA GAC GGT GAC CGT GGT CCC 3' (SEQ.ID.NO. 61)
JH2FORLiAsc	5' ACC GCC AGA GGC GCG CCC ACC TGA ACC GCC TCC ACC TGA GGA GAC TGT GAG AGT GGT GCC 3' (SEQ.ID.NO. 62)
JH3FORLiAsc	5' ACC GCC AGA GGC GCG CCC ACC TGA ACC GCC TCC ACC TGC AGA GAC AGT GAC CAG AGT CCC 3' (SEQ.ID.NO. 63)
JH4FORLiAsc	5' ACC GCC AGA GGC GCG CCC ACC TGA ACC GCC TCC ACC TGA GGA GAC GGT GAC TGA GGT TCC 3' (SEQ.ID.NO. 64)

IUPAC-Code: M=A/C, W=A/T, R=A/G, Y=C/T, S=C/G, K=G/T, H=A/C/T, D=A/G/T, V=A/C/G, B=T/C/G.

FIG. 12-2

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Primers for cloning mouse V_K genes

Mouse V_K back primers (containing AscI-site and 1/2 linker-sequence):

VK2BACK-LiAscI	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG GAC ATT GAG CTC ACC CAG TCT CCA 3' (SEQ.ID.NO. 65)
VK1BACKLi Asc	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG GAC ATT GTG ATG WCA CAG TCT CC 3' (SEQ.ID.NO. 66)
VK2BACKLi Asc	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG GAT GTT KTG ATG ACC CAA ACT CC 3' (SEQ.ID.NO. 67)
VK3BACKLi Asc	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG GAT ATT GTG ATR ACB CAG GCW GC 3' (SEQ.ID.NO. 68)
VK4BACKLi Asc	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG GAC ATT GTG CTG ACM CAR TCT GC 3' (SEQ.ID.NO. 69)
VK5BACKLi Asc	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG SAA AWT GTK CTC ACC CAG TCT CC 3' (SEQ.ID.NO. 70)
VK6BACKLi Asc	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG GAY ATY VWG ATG ACM CAG WCT CC 3' (SEQ.ID.NO. 71)
VK7BACKLi Asc	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG CAA ATT GTT CTC ACC CAG TCT CC 3' (SEQ.ID.NO. 72)
VK8BACKLi Asc	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG TCA TTA TTG CAG GTG CTT GTG GG 3' (SEQ.ID.NO. 73)

FIG. 13-1

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Mouse J_K forward primers (containing NotI-site):

JK1NOT10	5' GAG TCA TTC TGC GGC CGC CCG TTT GAT TTC CAG CTT GGT GCC 3'
	(SEQ.ID.NO. 74)
JK2NOT10	5' GAG TCA TTC TGC GGC CGC CCG TTT TAT TTC CAG CTT GGT CCC 3'
	(SEQ.ID.NO. 75)
JK3NOT10	5' GAG TCA TTC TGC GGC CGC CCG TTT TAT TTC CAG TCT GGT CCC 3'
	(SEQ.ID.NO. 76)
JK4NOT10	5' GAG TCA TTC TGC GGC CGC CCG TTT TAT TTC CAA CTT TGT CCC 3'
	(SEQ.ID.NO. 77)
JK5NOT10	5' GAG TCA TTC TGC GGC CGC CCG TTT CAG CTC CAG CTT GGT CCC 3'
	(SEQ.ID.NO. 78)

IUPAC-Code: K=G/T, M=A/C, W=A/T, R=A/G, Y=C/T, S=C/G, H=A/C/T, D=A/G/T, V=A/C/G, B=T/C/G.

FIG. 13-2

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VH

+1 E V K L V E S G P E L K K P G
1 GAG GTG AAG CTG GTG GAG TCT GGA CCT GAG CTG AAG AAG CCT GGA

+1 E T V K I S C K A S G Y I F T
46 GAG ACA GTC AAG ATC TCC TGC AAG GCT TCT GGG TAT ATC TTC ACA

+1 N Y G M N W V K Q A P G K G L
91 AAC TAT GGA ATG AAC TGG GTG AAG CAG GCT CCA GGA AAG GGT TTA

+1 K W M G W I N T Y T G E P T Y
136 AAG TGG ATG GGC TGG ATA AAC ACC TAC ACT GGA GAG CCA ACA TAT

+1 A D D F K G R F A F S L E T S
181 GCT GAT GAC TTC AAG GGA CGG TTT GCC TTC TCT TTG GAA ACC TCT

+1 A S T A Y L Q I N N L K N E D
226 GCC AGC ACT GCC TAT TTG CAG ATC AAC AAC CTC AAA AAT GAG GAC

+1 T A T Y F C A L Y G N S P K G
271 ACG GCT ACA TAT TTC TGT GCA TTA TAT GGT AAC TCC CCT AAG GGG

linker

+1 F A Y W G Q G T L V T V S A G
316 TTT GCT TAC TGG GGC CAA GGG ACT CTG GTC ACT GTC TCT GCA GGT

VL

+1 G G G S G G R A S G G G S D
361 GGA GGC GGT TCA GGT GGG CGC GCC TCT GGC GGT GGC GGA TCG GAT

+1 I Q M T Q S P K F L L V S A G
406 ATT CAG ATG ACA CAG TCT CCC AAA TTC CTG CTT GTA TCA GCA GGA

FIG. 14-1

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+1	D	R	V	T	I	T	C	K	A	S	Q	S	V	S	N
451	GAC	AGG	GTT	ACC	ATA	ACC	TGC	AAG	GCC	AGT	CAG	AGT	GTG	AGT	AAT
+1	D	V	A	W	Y	Q	Q	K	P	G	Q	S	P	K	L
496	GAT	GTA	GCT	TGG	TAC	CAA	CAG	AAG	CCG	GGG	CAG	TCT	CCT	AAA	CTA
+1	L	M	Y	Y	A	S	N	R	Y	T	G	V	P	D	R
541	CTG	ATG	TAC	TAT	GCA	TCC	AAT	CGC	TAC	ACT	GGA	GTC	CCT	GAT	CGC
+1	F	T	G	S	G	Y	G	T	D	F	T	F	T	I	S
586	TTC	ACT	GGC	AGT	GGA	TAT	GGG	ACG	GAT	TTC	ACT	TTC	ACC	ATC	AGC
+1	T	V	Q	A	E	D	L	A	V	Y	F	C	Q	Q	D
631	ACT	GTG	CAG	GCT	GAA	GAC	CTG	GCA	GTT	TAT	TTC	TGT	CAG	CAG	GAT
+1	Y	G	S	P	P	T	F	G	G	G	T	K	L	E	I
676	TAT	GGC	TCT	CCT	CCC	ACG	TTC	GGA	GGG	GGC	ACC	AAG	CTG	GAA	ATT
+1	K	R													
721	AAA	CGG													

FIG. 14-2

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VH

+1	E	V	Q	L	V	E	S	G	G	G	L	V	K	P	G
1	GAA	GTG	CAG	CTG	GTG	GAG	TCT	GGG	GGA	GGC	CTA	GTG	AAG	CCT	GGA

+1

G	S	L	K	L	S	C	A	A	S	G	F	T	F	S	
46	GGG	TCC	CTG	AAA	CTC	TCC	TGT	GCA	GCC	TCT	GGA	TTC	ACT	TTC	AGT

+1

T	Y	T	M	S	W	V	R	Q	T	P	E	K	R	L	
91	ACC	TAT	ACC	ATG	TCT	TGG	GTT	CGC	CAG	ACT	CCG	GAG	AAG	AGG	CTG

+1

E	W	V	A	T	I	S	S	G	G	S	Y	T	Y	Y	
136	GAG	TGG	GTC	GCA	ACC	ATT	AGT	AGT	GGT	GGT	AGT	TAC	ACC	TAC	TAT

+1

P	D	S	V	R	G	R	F	T	I	S	R	D	N	A	
181	CCA	GAC	AGT	GTG	AGG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	GAC	AAT	GCC

+1

K	N	T	L	Y	L	Q	M	S	S	L	K	S	E	D	
226	AAG	AAC	ACC	CTG	TAC	CTG	CAA	ATG	AGC	AGT	CTG	AAG	TCT	GAG	GAC

+1

T	A	M	Y	Y	C	T	R	D	G	G	H	G	Y	G	
271	ACA	GCC	ATG	TAT	TAC	TGT	ACA	AGA	GAT	GGG	GGA	CAC	GGG	TAC	GGT

+1

S	S	F	D	Y	W	G	Q	G	T	T	L	T	V	S	
316	AGT	AGC	TTT	GAC	TAC	TGG	GGC	CAA	GGC	ACC	ACT	CTC	ACA	GTC	TCC

linker

+1

S	G	G	G	G	S	G	G	R	A	S	G	G	G	G	
361	TCA	GGT	GGA	GGC	GGT	TCA	GGT	GGG	CGC	GCC	TCT	GGC	GGT	GGC	GGA

VL

+1

S	Q	I	V	L	T	Q	S	P	L	S	L	P	V	S	
406	TCG	CAA	ATT	GTG	CTC	ACC	CAG	TCT	CCA	CTC	TCC	CTG	CCT	GTC	AGT

FIG. 15-1

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+1	L	G	D	Q	A	S	I	S	C	R	S	S	Q	S	I
451	CTT	GGA	GAT	CAA	GCC	TCC	ATC	TCT	TGC	AGA	TCT	AGT	CAG	AGC	ATT
+1	V	H	S	N	G	N	T	Y	L	E	W	Y	L	Q	K
496	GTA	CAT	AGT	AAT	GGA	AAC	ACC	TAT	TTA	GAA	TGG	TAC	CTG	CAG	AAA
+1	P	G	Q	S	P	K	L	L	I	Y	K	V	S	N	R
541	CCA	GGC	CAG	TCT	CCA	AAG	CTC	CTG	ATC	TAC	AAA	GTT	TCC	AAC	CGA
+1	F	S	G	V	P	D	K	F	S	G	S	G	S	G	T
586	TTT	TCT	GGG	GTC	CCA	GAC	AAA	TTC	AGT	GGC	AGT	GGA	TCA	GGG	ACA
+1	D	F	T	L	K	I	S	R	V	E	A	E	D	L	G
631	GAT	TTC	ACA	CTC	AAG	ATC	AGC	AGA	GTG	GAG	GCT	GAG	GAT	CTG	GGA
+1	V	Y	Y	C	F	Q	G	S	H	V	P	W	T	F	G
676	GTT	TAT	TAC	TGC	TTT	CAA	GGT	TCA	CAT	GTT	CCG	TGG	ACG	TTC	GGT
+1	G	G	T	K	L	E	I	K	R						
721	GGA	GGC	ACC	AAG	CTG	GAA	ATC	AAA	CGG						

FIG. 15-2

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```
+1  E  V  Q  L  Q  E  S  G  G  G  L  V  K  P  G
1   GAG GTG CAG CTT CAG GAG TCA GGG GGA GGC TTA GTG AAG CCT GGA

+1  G  S  L  K  L  S  C  A  A  S  G  F  T  F  S
46  GGG TCC CTG AAA CTC TCC TGT GCA GCC TCT GGA TTC ACT TTC AGT

+1  S  Y  T  M  S  W  V  R  Q  T  P  E  K  R  L
91  AGC TAT ACC ATG TCT TGG GTT CGC CAG ACT CCG GAG AAG AGG CTG

+1  E  W  V  A  T  I  S  S  G  G  S  S  T  Y  Y
136 GAG TGG GTC GCA ACC ATT AGT AGT GGT GGT AGT TCC ACC TAC TAT

+1  P  D  S  V  K  G  R  F  T  I  S  R  D  N  A
181 CCA GAC AGT GTG AAG GGC CGA TTC ACC ATC TCC AGA GAC AAT GCC

+1  K  N  T  L  Y  L  Q  M  S  S  L  R  S  E  D
226 AAG AAC ACC CTG TAC CTG CAA ATG AGC AGT CTG AGG TCT GAG GAC

+1  T  A  M  Y  Y  C  T  R  E  G  G  G  F  T  V
271 ACA GCC ATG TAT TAC TGT ACA AGA GAG GGG GGT GGT TTC ACC GTC

+1  N  W  Y  F  D  V  W  G  A  G  T  L  V  T  V
316 AAC TGG TAC TTC GAT GTC TGG GGC GCA GGG ACT CTG GTC ACT GTC

      linker
+1  S  A  G  G  G  G  S  G  G  R  A  S  G  G  G
361 TCT GCA GGT GGA GGC GGT TCA GGT GGG CGC GCC TCT GGC GGT GGC

      VL
+1  G  S  E  N  V  L  T  Q  S  P  A  S  L  A  V
406 GGA TCG GAA AAT GTG CTC ACC CAG TCT CCA GCT TCT TTG GCT GTG
```

FIG. 16-1

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```
+1 S L G Q R A T I S C R A S E S  
451 TCT CTA GGG CAG AGG GCC ACC ATA TCC TGC AGA GCC AGT GAA AGT  
  
+1 V D S Y G Y N F M H W Y Q Q I  
496 GTT GAT AGT TAT GGC TAT AAT TTT ATG CAC TGG TAT CAG CAG ATA  
  
+1 P G Q P P K L L I Y R A S N L  
541 CCA GGA CAG CCA CCC AAA CTC CTC ATC TAT CGT GCA TCC AAC CTA  
  
+1 E S G I P A R F S G S G S R T  
586 GAG TCT GGG ATC CCT GCC AGG TTC AGT GGC AGT GGG TCT AGG ACA  
  
+1 D F T L T I N P V E A D D V A  
631 GAC TTC ACC CTC ACC ATT AAT CCT GTG GAG GCT GAT GAT GTT GCA  
  
+1 T Y Y C Q Q S N E D P L T F G  
676 ACC TAT TAC TGT CAG CAA AGT AAT GAG GAT CCG CTC ACG TTC GGT  
  
+1 T G T R L E I K R  
721 ACT GGG ACC AGA CTG GAA ATA AAA CGG
```

FIG. 16-2

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```

+1   R   A   S   E   S   V   D   S   Y   G   K   S   F   M   H   W   Y   Q   Q   K
481  AGA GCC AGT GAA AGT GTT GAT AGT TAT GGC AAG AGT TTT ATG CAC TGG TAC CAG CAG AAA
    TCT CGG TCA CTT TCA CAA CTA TCA ATA CCG TTC TCA AAA TAC GTG ACC ATG GTC GTC TTT

+1   P   G   Q   P   P   K   L   L   L   I   Y   R   A   S   N   L   E   S   G   I   P
541  CCA GGG CAG CCA CCC AAA CTC CTC ATC TAT CGT GCA TCC AAC CTA GAA TCT GGG ATC CCT
    GGT CCC GTC GGT GGG TTT GAG GAG TAG ATA GCA CGT AGG TTG GAT CTT AGA CCC TAG GGA

+1   A   R   F   S   G   S   G   S   R   T   D   F   T   L   T   I   N   P   V   E
601  GCC AGG TTC AGT GGC AGT GGC TCT AGG ACA GAC TTC ACC CTC ACC ATT AAT CCT GTG GAG
    CGG TCC AAG TCA CCG TCA CCC AGA TCC TGT CTG AAG TGG GAG TGG TAA TTA GGA CAC CTC

+1   A   D   D   V   A   T   Y   Y   C   Q   Q   S   N   E   D   P   L   T   F   G
661  GCT GAT GAT GTT GCN ACC TAT TAC TGT TGT CAG CAA AGT AAT GAG GAT CCC CTC ACG TTC GGT
    CGA CTA CTA CAA CGN TGG ATA ATG ACA GTC GTT TCA TTA CTC CTC GAG TGC AAG CCA

+1   A   G   T   R   L   E   I   K   R
721  GCT GGG ACC AGA CTG GAA ATA AAA CGG
    CGA CCC TGG TCT GAC CTT TAT TTT GCC
    
```

FIG. 17-2

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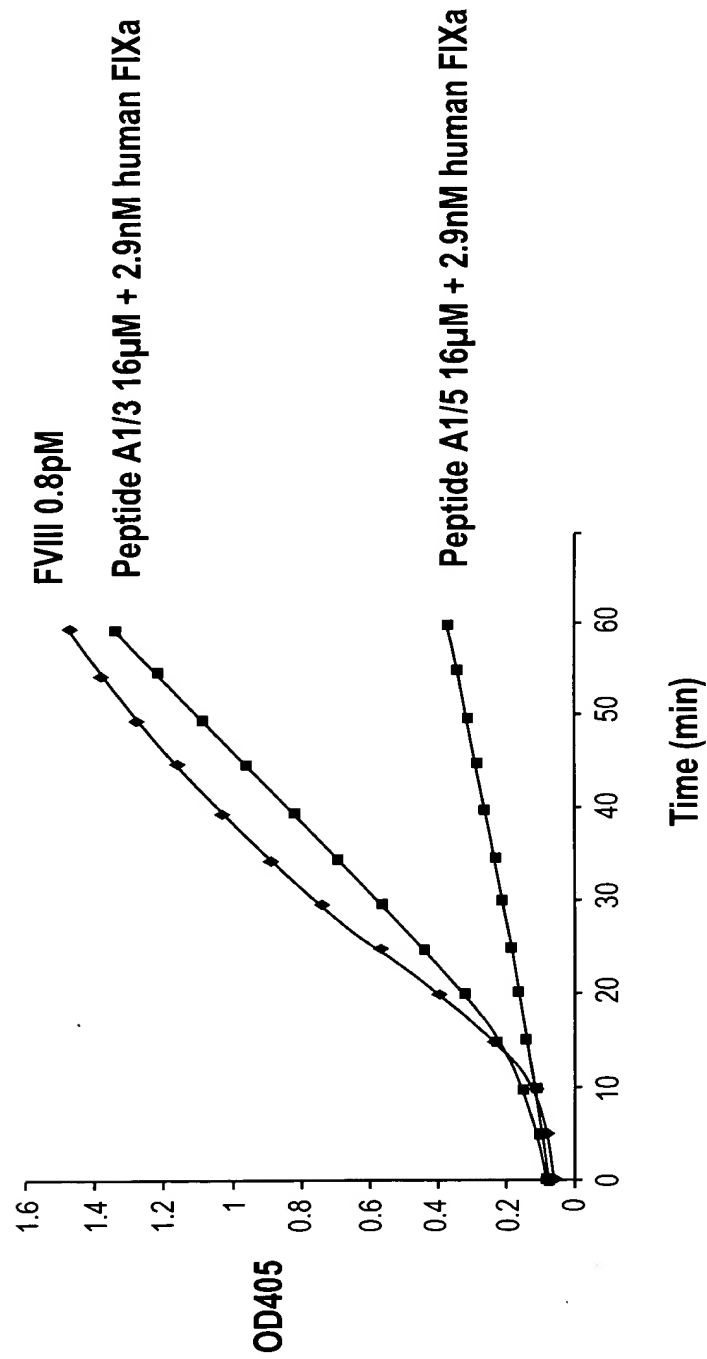


FIG. 18

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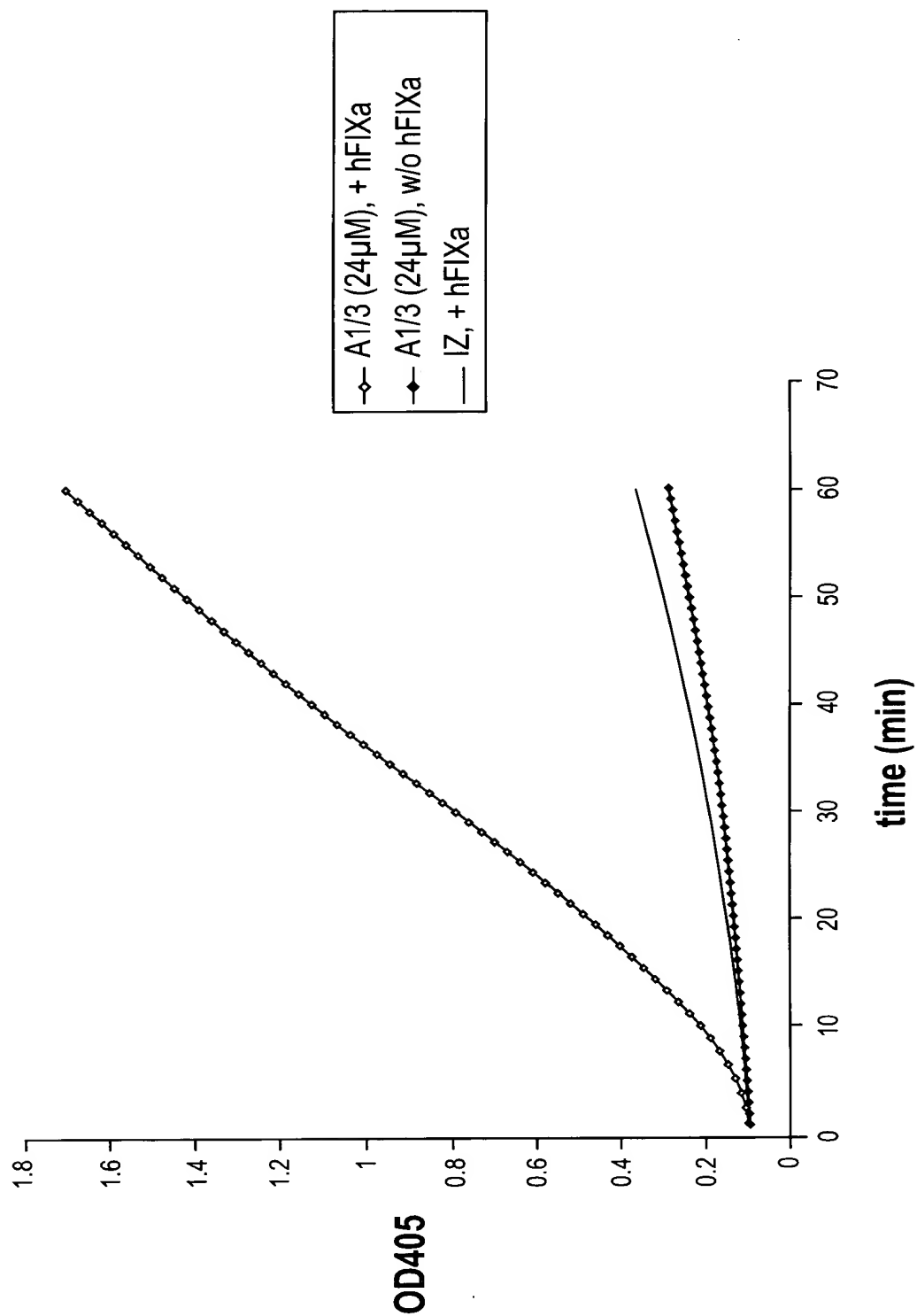


FIG. 19

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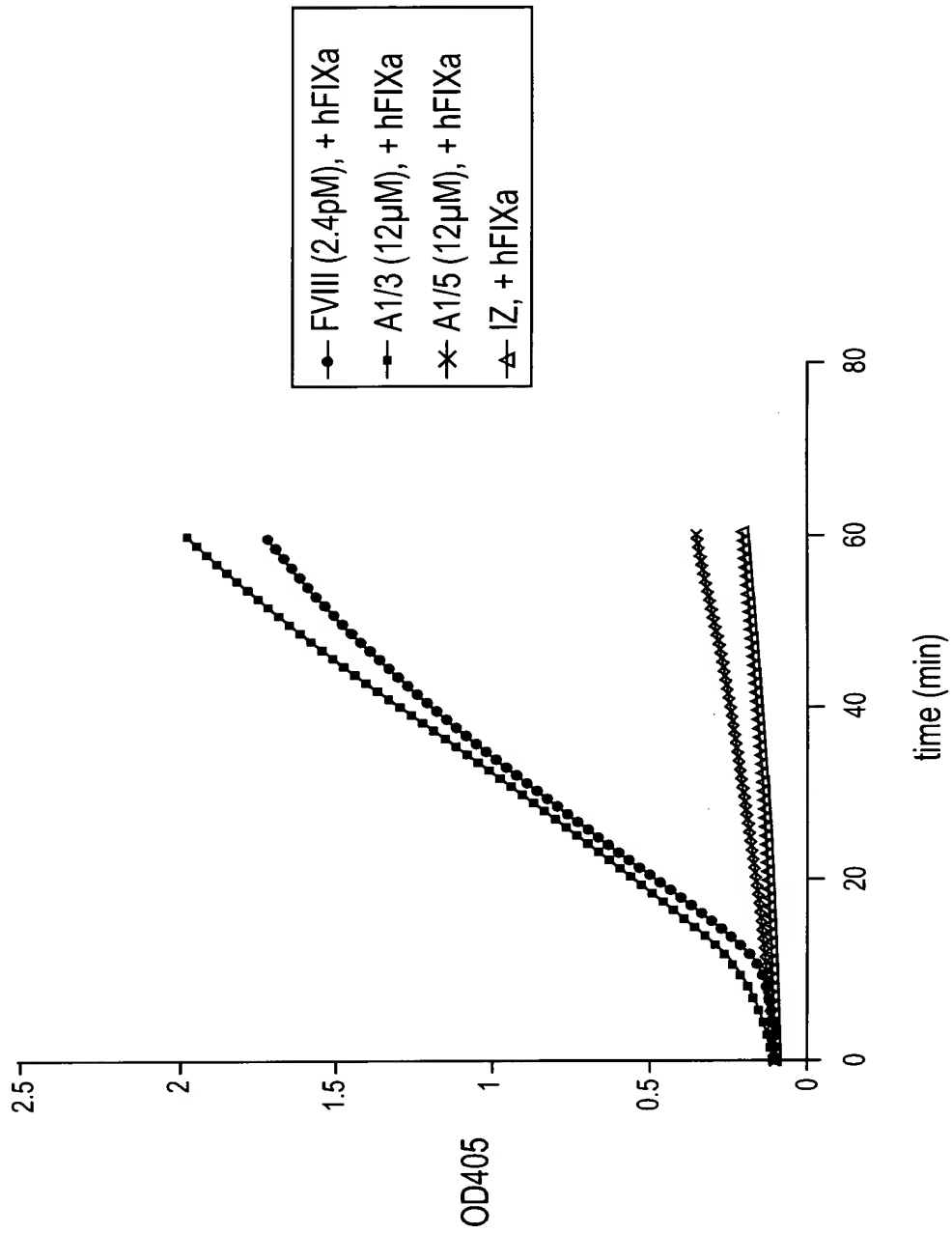


FIG. 20

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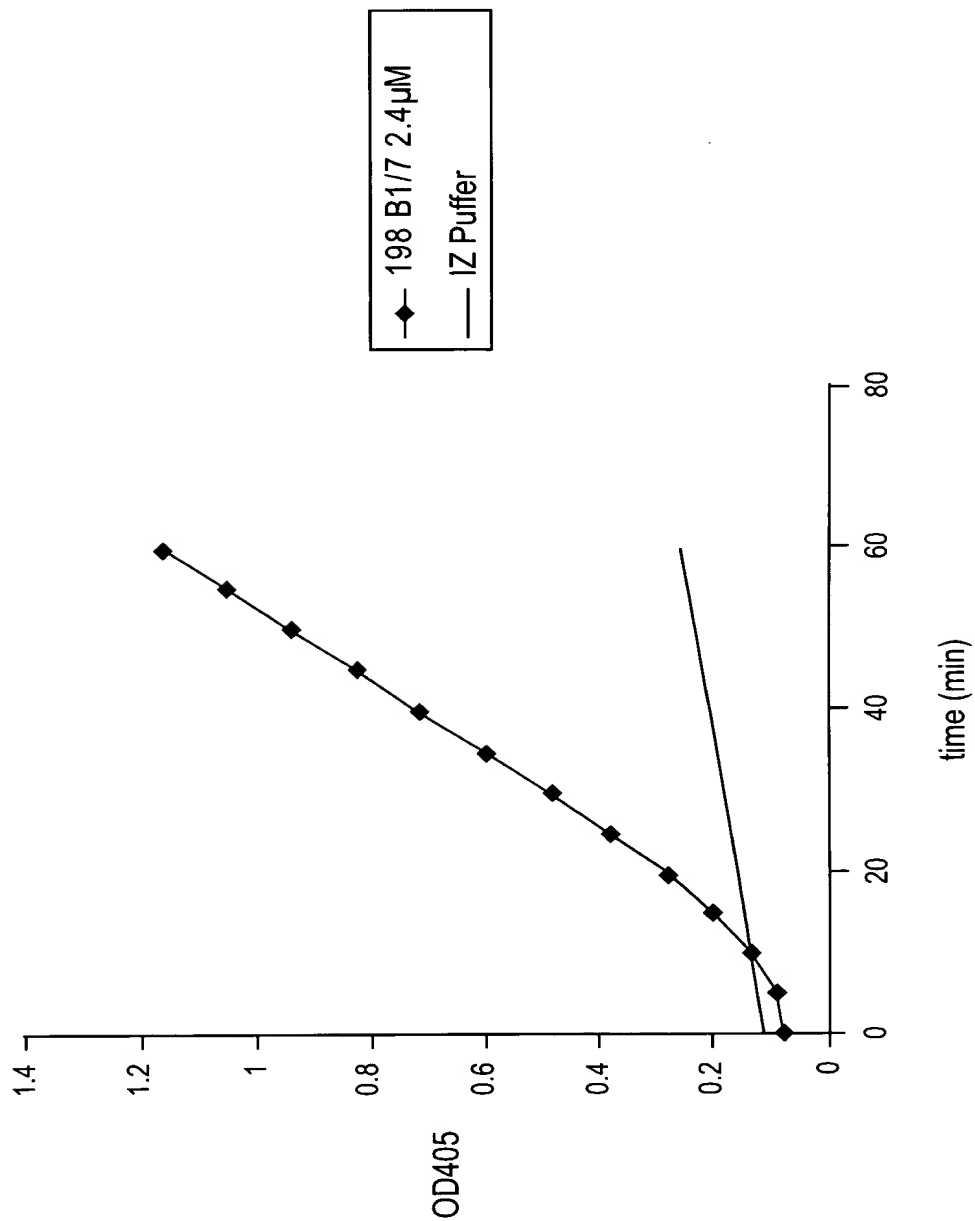


FIG. 21

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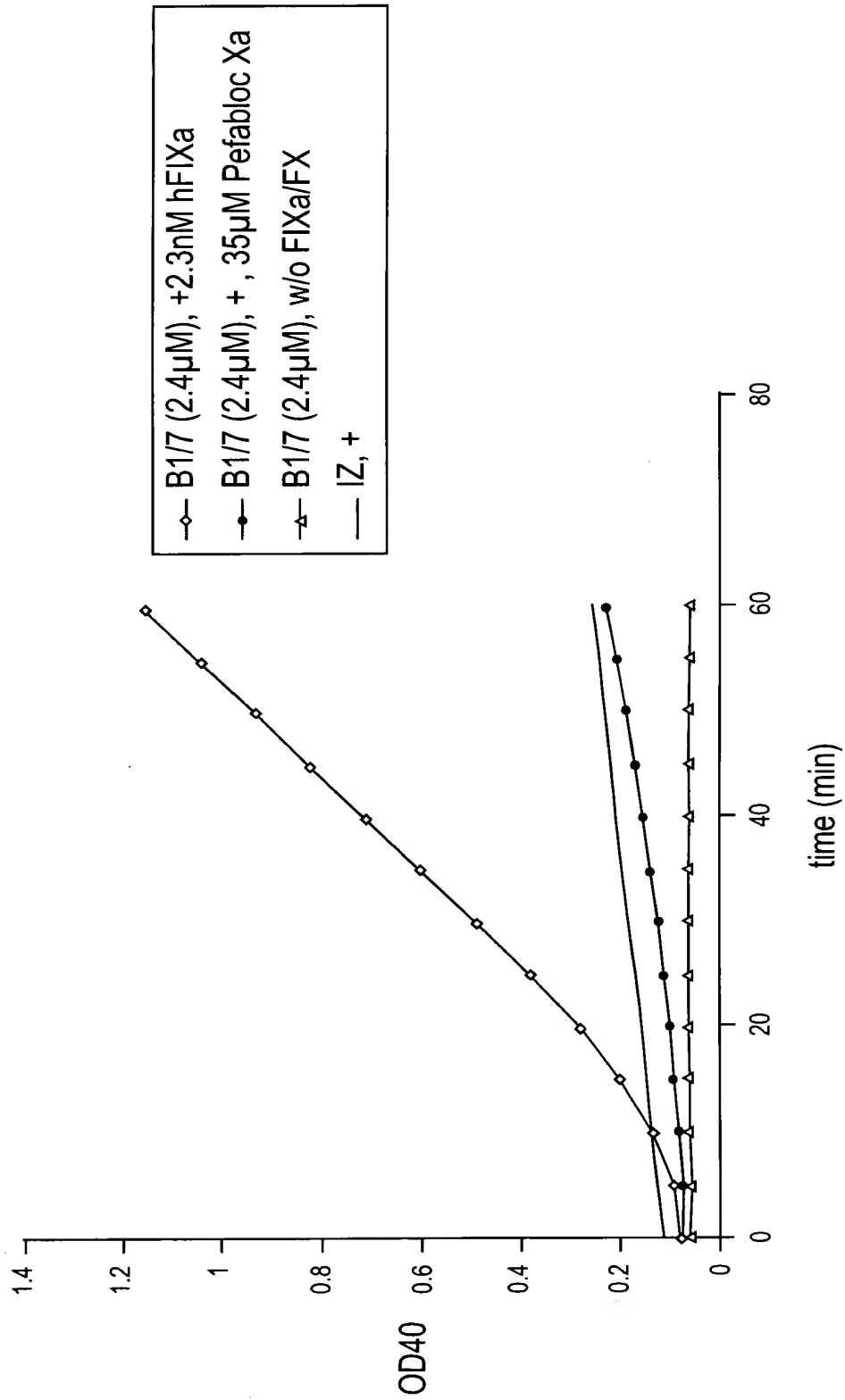


FIG. 22

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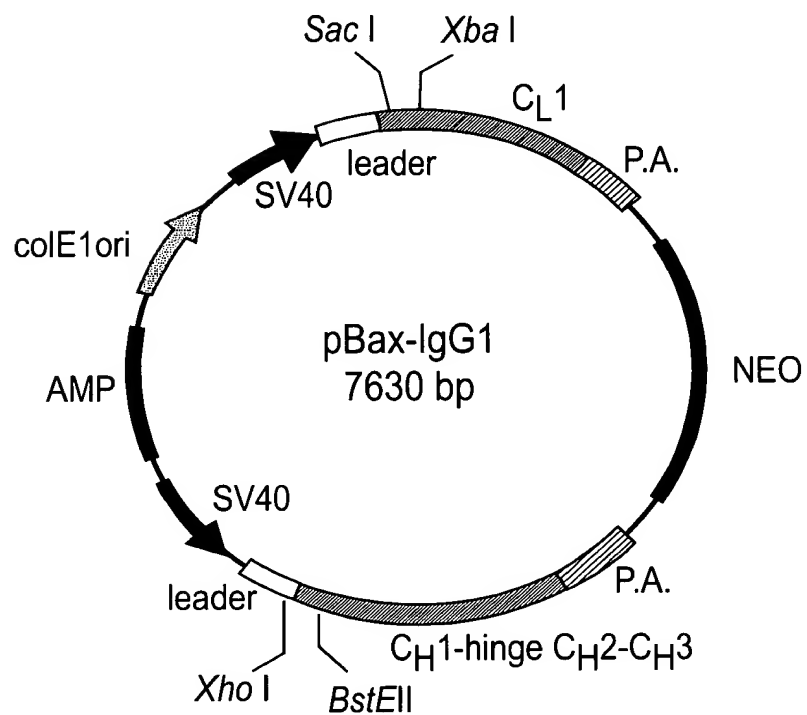


FIG. 23

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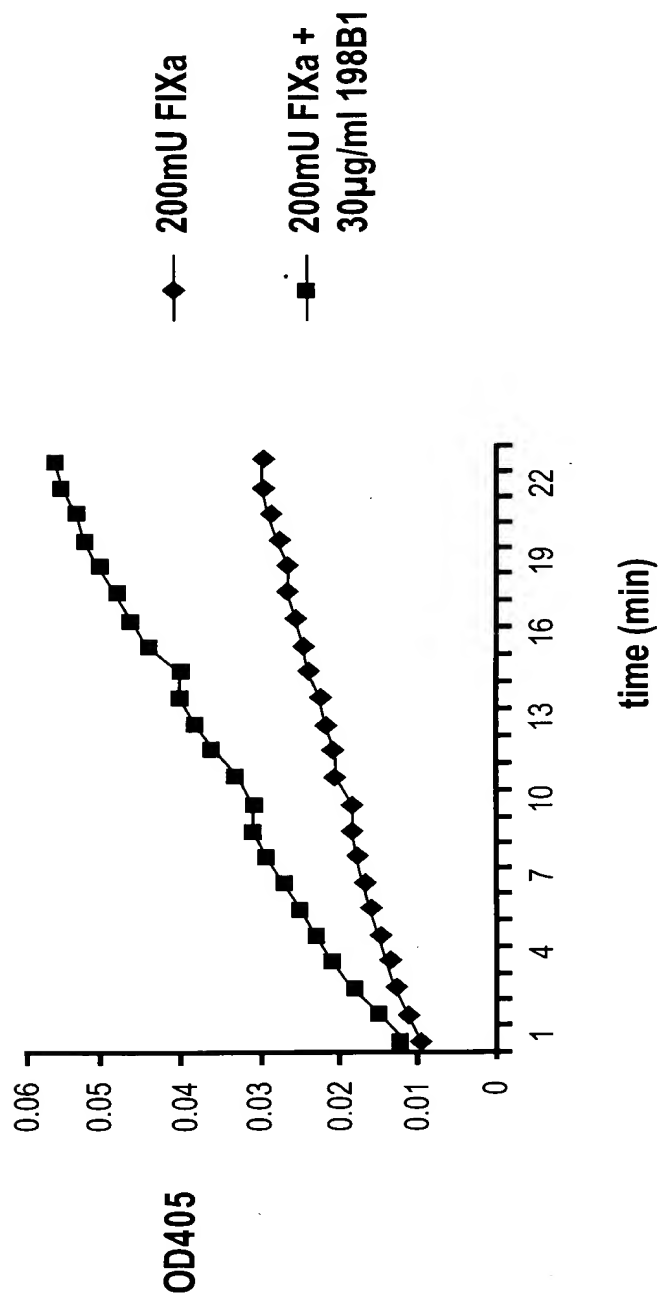


FIG. 24A

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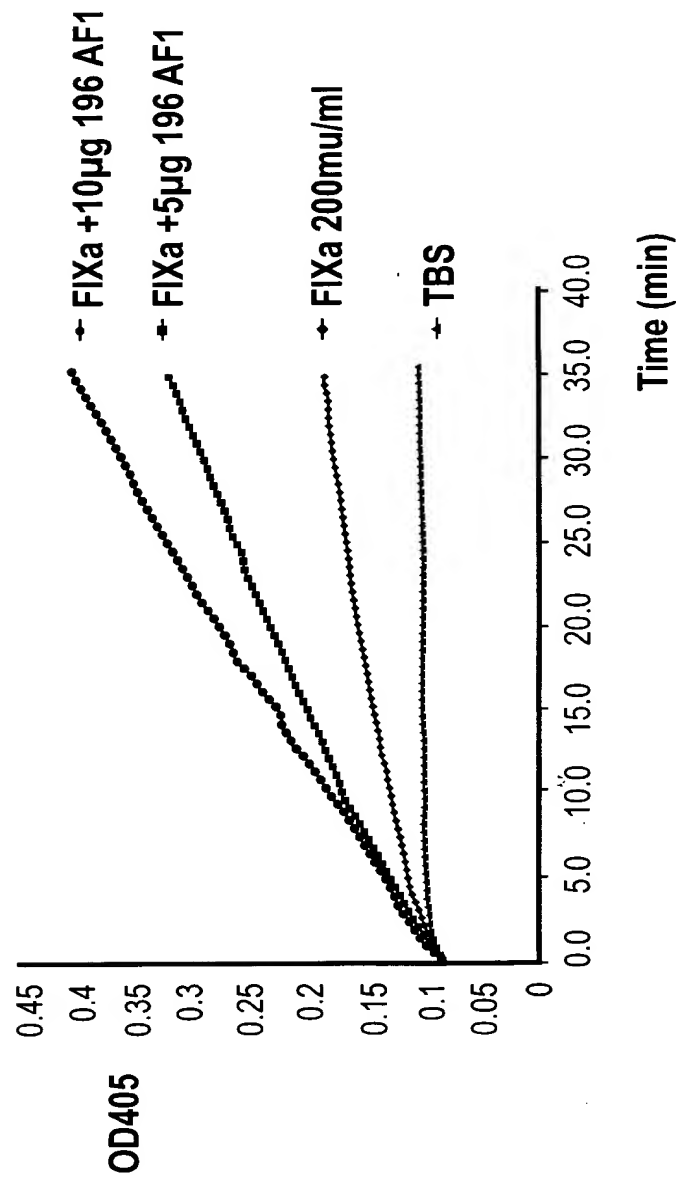


FIG. 24B

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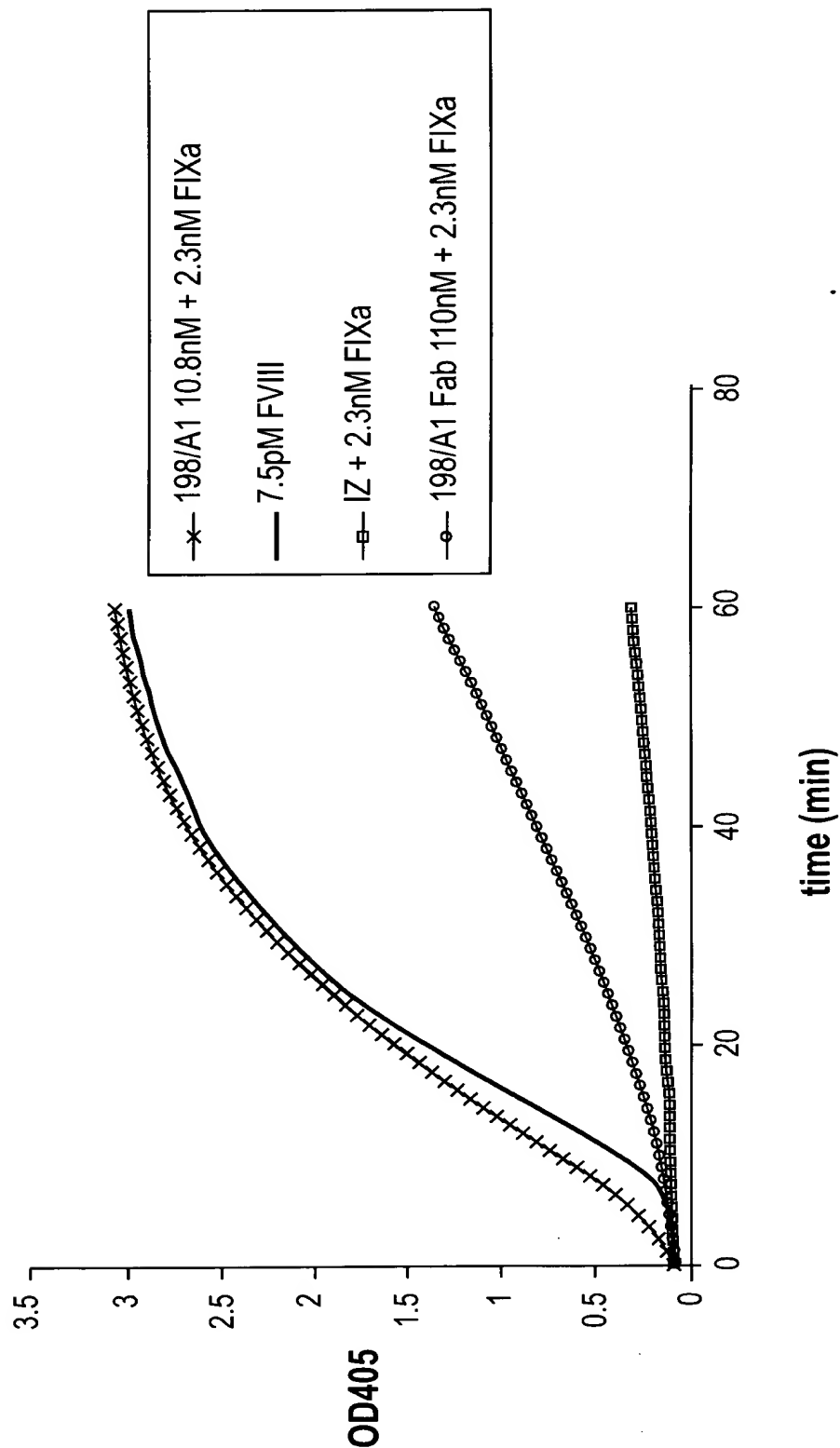


FIG. 25

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PelB-Leader														
+1	M	K	Y	L	L	P	T	A	A	A	G	L	L	L
1	ATG	AAA	TAC	CTA	TTG	CCT	ACG	GCA	GCC	GCT	GGA	TTG	TTA	TTA
	TAC	TTT	ATG	GAT	AAC	GGA	TGC	CGT	CGG	CGA	CCT	AAC	AAT	AAT
VH														
+1	L	A	A	Q	P	A	M	A	E	V	K	L	V	E
43	CTC	GCG	GCC	CAG	CCG	GCC	ATG	GCG	GAG	GTG	AAG	CTG	GTG	GAG
	GAG	CGC	CGG	GTC	GGC	CGG	TAC	CGC	CTC	CAC	TTC	GAC	CAC	CTC
+1	S	G	G	G	L	V	K	P	G	G	S	L	K	L
85	TCT	GGG	GGA	GGC	TTA	GTG	AAG	CCT	GGA	GGG	TCC	CTG	AAA	CTC
	AGA	CCC	CCT	CCG	AAT	CAC	TTC	GGA	CCT	CCC	AGG	GAC	TTT	GAG
+1	S	C	A	A	S	G	F	T	F	S	S	Y	T	M
127	TCC	TGT	GCA	GCC	TCT	GGA	TTC	ACT	TTC	AGT	AGC	TAT	ACC	ATG
	AGG	ACA	CGT	CGG	AGA	CCT	AAG	TGA	AAG	TCA	TCG	ATA	TGG	TAC
+1	S	W	V	R	Q	T	P	E	K	R	L	E	W	V
169	TCT	TGG	GTT	CGC	CAG	ACT	CCG	GAG	AAG	AGG	CTG	GAG	TGG	GTC
	AGA	ACC	CAA	GCG	GTC	TGA	GGC	CTC	TTC	TCC	GAC	CTC	ACC	CAG
+1	A	T	I	S	S	G	G	S	S	T	Y	Y	P	D
211	GCA	ACC	ATT	AGT	AGT	GGN	GGT	AGT	TCC	ACC	TAC	TAT	CCA	GAC
	CGT	TGG	TAA	TCA	TCA	CCN	CCA	TCA	AGG	TGG	ATG	ATA	GGT	CTG
+1	S	V	K	G	R	F	T	I	S	R	D	N	A	K
253	AGT	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	GAC	AAT	GCC	AAG
	TCA	CAC	TTC	CCG	GCT	AAG	TGG	TAG	AGG	TCT	CTG	TTA	CGG	TTC
+1	N	T	L	Y	L	Q	M	S	S	L	R	S	E	D
295	AAC	ACC	CTG	TAC	CTG	CAA	ATG	AGC	AGT	CTG	AGG	TCT	GAG	GAC
	TTG	TGG	GAC	ATG	GAC	GTT	TAC	TCG	TCA	GAC	TCC	AGA	CTC	CTG
+1	T	A	M	Y	Y	C	T	R	E	G	G	G	F	T
337	ACA	GCC	ATG	TAT	TAC	TGT	ACA	AGA	GAG	GGG	GGT	GGT	TTC	ACC
	TGT	CGG	TAC	ATA	ATG	ACA	TGT	TCT	CTC	CCC	CCA	CCA	AAG	TGG
+1	V	N	W	Y	F	D	V	W	G	A	G	T	S	V
379	GTC	AAC	TGG	TAC	TTC	GAT	GTC	TGG	GGC	GCA	GGA	ACC	TCA	GTC
	CAG	TTG	ACC	ATG	AAG	CTA	CAG	ACC	CCG	CGT	CCT	TGG	AGT	CAG
linker														
+1	T	V	S	S	G	G	G	G	S	G	G	R	A	S
421	ACC	GTC	TCC	TCA	GGT	GGA	GGC	GGT	TCA	GGT	GGG	CGC	GCC	TCT
	TGG	CAG	AGG	AGT	CCA	CCT	CCG	CCA	AGT	CCA	CCC	GCG	CGG	AGA

FIG. 26-1

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						VL									
+1	G	G	G	G	S	D	I	V	L	T	Q	S	P	A	
463	GGC	GGT	GGC	GGA	TCG	GAC	ATT	GTG	CTG	ACA	CAG	TCT	CCA	GCT	
	CCG	CCA	CCG	CCT	AGC	CTG	TAA	CAC	GAC	TGT	GTC	AGA	GGT	CGA	
+1	S	L	A	V	S	L	G	Q	R	A	T	I	S	C	
505	TCT	TTG	GCT	GTG	TCT	CTA	GGG	CAG	AGG	GCC	ACC	ATA	TCC	TGC	
	AGA	AAC	CGA	CAC	AGA	GAT	CCC	GTC	TCC	CGG	TGG	TAT	AGG	ACG	
+1	R	A	S	E	S	V	D	S	Y	G	Y	N	F	M	
547	AGA	GCC	AGT	GAA	AGT	GTT	GAT	AGT	TAT	GGC	TAT	AAT	TTT	ATG	
	TCT	CGG	TCA	CTT	TCA	CAA	CTA	TCA	ATA	CCG	ATA	TTA	AAA	TAC	
+1	H	W	Y	Q	Q	I	P	G	Q	P	P	K	L	L	
589	CAC	TGG	TAT	CAG	CAG	ATA	CCA	GGA	CAG	CCA	CCC	AAA	CTC	CTC	
	GTG	ACC	ATA	GTC	GTC	TAT	GGT	CCT	GTC	GGT	GGG	TTT	GAG	GAG	
+1	I	Y	R	A	S	N	L	E	S	G	I	P	A	R	
631	ATC	TAT	CGT	GCA	TCC	AAC	CTA	GAG	TCT	GGG	ATC	CCT	GCC	AGG	
	TAG	ATA	GCA	CGT	AGG	TTG	GAT	CTC	AGA	CCC	TAG	GGA	CGG	TCC	
+1	F	S	G	S	G	S	R	T	D	F	T	L	T	I	
673	TTC	AGT	GGC	AGT	GGG	TCT	AGG	ACA	GAC	TTC	ACC	CTC	ACC	ATT	
	AAG	TCA	CCG	TCA	CCC	AGA	TCC	TGT	CTG	AAG	TGG	GAG	TGG	TAA	
+1	N	P	V	E	A	D	D	V	A	T	Y	Y	C	Q	
715	AAT	CCT	GTG	GAG	GCT	GAT	GAT	GTT	GCA	ACC	TAT	TAC	TGT	CAG	
	TTA	GGA	CAC	CTC	CGA	CTA	CTA	CAA	CGT	TGG	ATA	ATG	ACA	GTC	
+1	Q	S	N	E	D	P	L	T	F	G	T	G	T	R	
757	CAA	AGT	AAT	GAG	GAT	CCG	CTC	ACG	TTC	GGT	ACT	GGG	ACC	AGA	
	GTT	TCA	TTA	CTC	CTA	GGC	GAG	TGC	AAG	CCA	TGA	CCC	TGG	TCT	
						Spacer				Alkaline phosphatase					
+1	L	E	I	K	R	A	A	A	A	R	A	P	E	M	
799	CTG	GAA	ATA	AAA	CGG	GCG	GCC	GCA	GCC	CGG	GCA	CCA	GAA	ATG	
	GAC	CTT	TAT	TTT	GCC	CGC	CGG	CGT	CGG	GCC	CGT	GGT	CTT	TAC	
+1	P	V	L	E	N	R	A	A	Q	G	D	I	T	A	
841	CCT	GTT	CTG	GAA	AAC	CGG	GCT	GCT	CAG	GGC	GAT	ATT	ACT	GCA	
	GGA	CAA	GAC	CTT	TTG	GCC	CGA	CGA	GTC	CCG	CTA	TAA	TGA	CGT	
+1	P	G	G	A	R	R	L	T	G	D	Q	T	A	A	
883	CCC	GGC	GGT	GCT	CGC	CGT	TTA	ACG	GGT	GAT	CAG	ACT	GCC	GCT	
	GGG	CCG	CCA	CGA	GCG	GCA	AAT	TGC	CCA	CTA	GTC	TGA	CGG	CGA	
+1	L	R	D	S	L	S	D	K	P	A	K	N	I	I	
925	CTG	CGT	GAT	TCT	CTT	AGC	GAT	AAA	CCT	GCA	AAA	AAT	ATT	ATT	
	GAC	GCA	CTA	AGA	GAA	TCG	CTA	TTT	GGA	CGT	TTT	TTA	TAA	TAA	

FIG. 26-2

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+1	L	L	I	G	D	G	M	G	D	S	E	I	T	A
463	TTG	CTG	ATT	GGC	GAT	GGG	ATG	GGG	GAC	TCG	GAA	ATT	ACT	GCC
	AAC	GAC	TAA	CCG	CTA	CCC	TAC	CCC	CTG	AGC	CTT	TAA	TGA	CGG
+1	A	R	N	Y	A	E	G	A	G	G	F	F	K	G
505	GCA	CGT	AAT	TAT	GCC	GAA	GGT	GCG	GGC	GGC	TTT	TTT	AAA	GGT
	CGT	GCA	TTA	ATA	CGG	CTT	CCA	CGC	CCG	CCG	AAA	AAA	TTT	CCA
+1	I	D	A	L	P	L	T	G	Q	Y	T	H	Y	A
1051	ATA	GAT	GCC	TTA	CCG	CTT	ACC	GGG	CAA	TAC	ACT	CAC	TAT	GCG
	TAT	CTA	CGG	AAT	GGC	GAA	TGG	CCC	GTT	ATG	TGA	GTG	ATA	CGC
+1	L	N	K	K	T	G	K	P	D	Y	V	T	D	S
1093	CTG	AAT	AAA	AAA	ACC	GGC	AAA	CCG	GAC	TAC	GTC	ACC	GAC	TCG
	GAC	TTA	TTT	TTT	TGG	CCG	TTT	GGC	CTG	ATG	CAG	TGG	CTG	AGC
+1	A	A	S	A	T	A	W	S	T	G	V	K	T	Y
1135	GCT	GCA	TCA	GCA	ACC	GCC	TGG	TCA	ACC	GGT	GTC	AAA	ACC	TAT
	CGA	CGT	AGT	CGT	TGG	CGG	ACC	AGT	TGG	CCA	CAG	TTT	TGG	ATA
+1	N	G	A	L	G	V	D	I	H	E	K	D	H	P
1177	AAC	GGC	GCG	CTG	GGC	GTC	GAT	ATT	CAC	GAA	AAA	GAT	CAC	CCA
	TTG	CCG	CGC	GAC	CCG	CAG	CTA	TAA	GTG	CTT	TTT	CTA	GTG	GGT
+1	T	I	L	E	M	A	K	A	A	G	L	A	T	G
1219	ACG	ATT	CTG	GAA	ATG	GCA	AAA	GCC	GCA	GGT	CTG	GCG	ACC	GGT
	TGC	TAA	GAC	CTT	TAC	CGT	TTT	CGG	CGT	CCA	GAC	CGC	TGG	CCA
+1	N	V	S	T	A	E	L	Q	D	A	T	P	A	A
1261	AAC	GTT	TCT	ACC	GCA	GAG	TTG	CAG	GAT	GCC	ACG	CCC	GCT	GCG
	TTG	CAA	AGA	TGG	CGT	CTC	AAC	GTC	CTA	CGG	TGC	GGG	CGA	CGC
+1	L	V	A	H	V	T	S	R	K	C	Y	G	P	S
1303	CTG	GTG	GCA	CAT	GTG	ACC	TCG	CGC	AAA	TGC	TAC	GGT	CCG	AGC
	GAC	CAC	CGT	GTA	CAC	TGG	AGC	GCG	TTT	ACG	ATG	CCA	GGC	TCG
+1	A	T	S	E	K	C	P	G	N	A	L	E	K	G
1345	GCG	ACC	AGT	GAA	AAA	TGT	CCG	GGT	AAC	GCT	CTG	GAA	AAA	GGC
	CGC	TGG	TCA	CTT	TTT	ACA	GGC	CCA	TTG	CGA	GAC	CTT	TTT	CCG
+1	G	K	G	S	I	T	E	Q	L	L	N	A	R	A
1387	GGA	AAA	GGA	TCG	ATT	ACC	GAA	CAG	CTG	CTT	AAC	GCT	CGT	GCC
	CCT	TTT	CCT	AGC	TAA	TGG	CTT	GTC	GAC	GAA	TTG	CGA	GCA	CGG
+1	D	V	T	L	G	G	G	A	K	T	F	A	E	T
1429	GAC	GTT	ACG	CTT	GGC	GGC	GGC	GCA	AAA	ACC	TTT	GCT	GAA	ACG
	CTG	CAA	TGC	GAA	CCG	CCG	CCG	CGT	TTT	TGG	AAA	CGA	CTT	TGC

FIG. 26-3

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+1	A	T	A	G	E	W	Q	G	K	T	L	R	E	Q
1471	GCA	ACC	GCT	GGT	GAA	TGG	CAG	GGA	AAA	ACG	CTG	CGT	GAA	CAG
	CGT	TGG	CGA	CCA	CTT	ACC	GTC	CCT	TTT	TGC	GAC	GCA	CTT	GTC
+1	A	Q	A	R	G	Y	Q	L	V	S	D	A	A	S
1513	GCA	CAG	GCG	CGT	GGT	TAT	CAG	TTG	GTG	AGC	GAT	GCT	GCC	TCA
	CGT	GTC	CGC	GCA	CCA	ATA	GTC	AAC	CAC	TCG	CTA	CGA	CGG	AGT
+1	L	N	S	V	T	E	A	N	Q	Q	K	P	L	L
1555	CTG	AAT	TCG	GTG	ACG	GAA	GCG	AAT	CAG	CAA	AAA	CCC	CTG	CTT
	GAC	TTA	AGC	CAC	TGC	CTT	CGC	TTA	GTC	GTT	TTT	GGG	GAC	GAA
+1	G	L	F	A	D	G	N	M	P	V	R	W	L	G
1177	GGC	CTG	TTT	GCT	GAC	GGC	AAT	ATG	CCA	GTG	CGC	TGG	CTA	GGA
	CCG	GAC	AAA	CGA	CTG	CCG	TTA	TAC	GGT	CAC	GCG	ACC	GAT	CCT
+1	P	K	A	T	Y	H	G	N	I	D	K	P	A	V
1639	CCG	AAA	GCA	ACG	TAC	CAT	GGC	AAT	ATC	GAT	AAG	CCC	GCA	GTC
	GGC	TTT	CGT	TGC	ATG	GTA	CCG	TTA	TAG	CTA	TTC	GGG	CGT	CAG
+1	T	C	T	P	N	P	Q	R	N	D	S	V	P	T
1681	ACC	TGT	ACG	CCA	AAT	CCG	CAA	CGT	AAT	GAC	AGT	GTA	CCA	ACC
	TGG	ACA	TGC	GGT	TTA	GGC	GTT	GCA	TTA	CTG	TCA	CAT	GGT	TGG
+1	L	A	Q	M	T	D	K	A	I	E	L	L	S	K
1723	CTG	GCG	CAG	ATG	ACC	GAC	AAA	GCC	ATT	GAA	TTG	TTG	AGT	AAA
	GAC	CGC	GTC	TAC	TGG	CTG	TTT	CGG	TAA	CTT	AAC	AAC	TCA	TTT
+1	N	E	K	G	F	F	L	Q	V	E	G	A	S	I
1765	AAT	GAG	AAA	GGC	TTT	TTC	CTG	CAA	GTT	GAA	GGT	GCG	TCA	ATC
	TTA	CTC	TTT	CCG	AAA	AAG	GAC	GTT	CAA	CTT	CCA	CGC	AGT	TAG
+1	D	K	Q	D	H	A	A	N	P	C	G	Q	I	G
1807	GAT	AAA	CAG	GAT	CAT	GCT	GCG	AAT	CCT	TGT	GGG	CAA	ATT	GGC
	CTA	TTT	GTC	CTA	GTA	CGA	CGC	TTA	GGA	ACA	CCC	GTT	TAA	CCG
+1	E	T	V	D	L	D	E	A	V	Q	R	A	L	E
1849	GAG	ACG	GTC	GAT	CTC	GAT	GAA	GCC	GTA	CAA	CGG	GCG	CTG	GAA
	CTC	TGC	CAG	CTA	GAG	CTA	CTT	CGG	CAT	GTT	GCC	CGC	GAC	CTT
+1	F	A	K	K	E	G	N	T	L	V	I	V	T	A
1891	TTC	GCT	AAA	AAG	GAG	GGT	AAC	ACG	CTG	GTC	ATA	GTC	ACC	GCT
	AAG	CGA	TTT	TTC	CTC	CCA	TTG	TGC	GAC	CAG	TAT	CAG	TGG	CGA
+1	D	H	A	H	A	S	Q	I	V	A	P	D	T	K
1933	GAT	CAC	GCC	CAC	GCC	AGC	CAG	ATT	GTT	GCG	CCG	GAT	ACC	AAA
	CTA	GTG	CGG	GTG	CGG	TCG	GTC	TAA	CAA	CGC	GGC	CTA	TGG	TTT
+1	A	P	G	L	T	Q	A	L	N	T	K	D	G	A
1975	GCT	CCG	GGC	CTC	ACC	CAG	GCG	CTA	AAT	ACC	AAA	GAT	GGC	GCA
	CGA	GGC	CCG	GAG	TGG	GTC	CGC	GAT	TTA	TGG	TTT	CTA	CCG	CGT

FIG. 26-4

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	+1	V	M	V	M	S	Y	G	N	S	E	E	D	S	Q
2017		GTG	ATG	GTG	ATG	AGT	TAC	GGG	AAC	TCC	GAA	GAG	GAT	TCA	CAA
		CAC	TAC	CAC	TAC	TCA	ATG	CCC	TTG	AGG	CTT	CTC	CTA	AGT	GTT
	+1	E	H	T	G	S	Q	L	R	I	A	A	Y	G	P
2059		GAA	CAT	ACC	GGC	AGT	CAG	TTG	CGT	ATT	GCG	GCG	TAT	GGC	CCG
		CTT	GTA	TGG	CCG	TCA	GTC	AAC	GCA	TAA	CGC	CGC	ATA	CCG	GGC
	+1	H	A	A	N	V	V	G	L	T	D	Q	T	D	L
2101		CAT	GCC	GCC	AAT	GTT	GTT	GGA	CTG	ACC	GAC	CAG	ACC	GAT	CTC
		GTA	CGG	CGG	TTA	CAA	CAA	CCT	GAC	TGG	CTG	GTC	TGG	CTA	GAG
	+1	F	Y	T	M	K	A	A	L	G	D	I	His tag		
2143		TTC	TAC	ACC	ATG	AAA	GCC	GCT	CTG	GGG	GAT	ATC	A	H	H
		AAG	ATG	TGG	TAC	TTT	CGG	CGA	GAC	CCC	CTA	TAG	GCA	CAC	CAT
	+1	H	H	H	H	*									
2185		CAC	CAT	CAC	CAT	TAA									
		GTG	GTA	GTG	GTA	ATT									

FIG. 26-5

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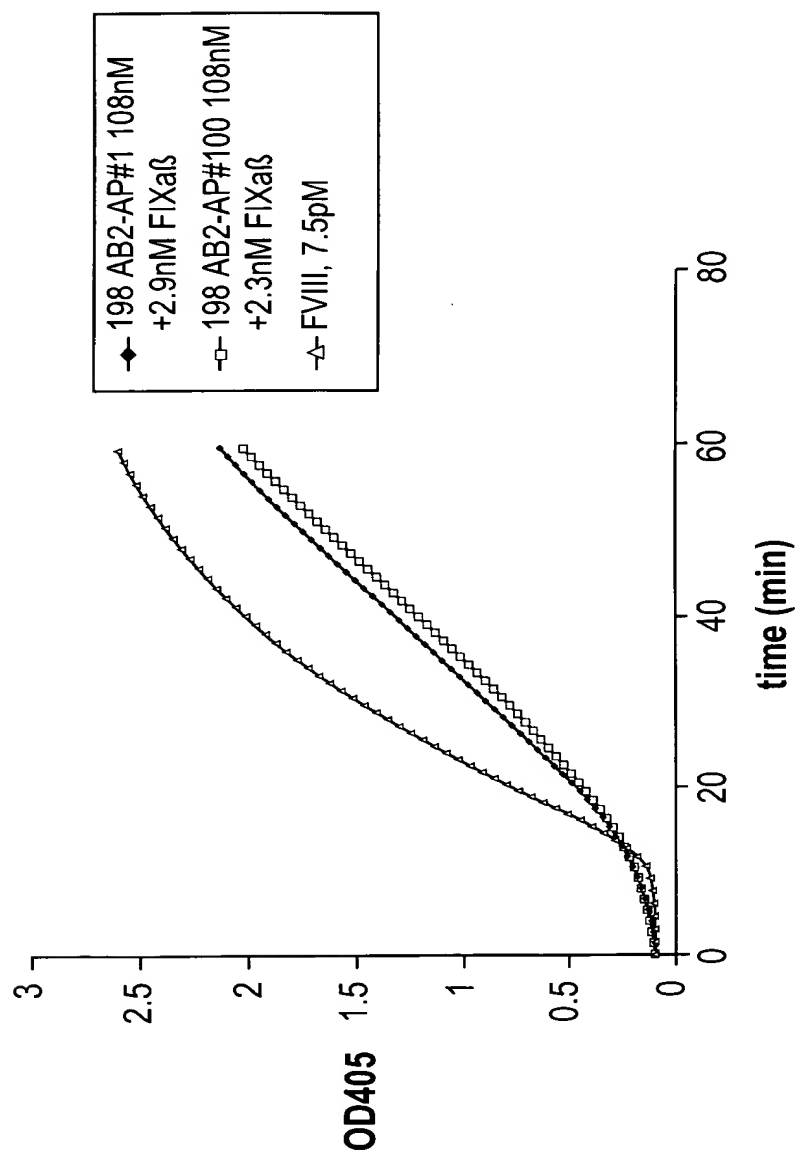


FIG. 27

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PelB-Leader

+1	M	K	Y	L	L	P	T	A	A	A	G	L	L	L	L
1	ATG	AAA	TAC	CTA	TTG	CCT	ACG	GCA	GCC	GCT	GGA	TTG	TTA	TTA	CTC
	TAC	TTT	ATG	GAT	AAC	GGA	TGC	CGT	CGG	CGA	CCT	AAC	AAT	AAT	GAG
+1	A	A	Q	P	A	M	A	E	V	K	L	V	E	S	G
46	GCG	GCC	CAG	CCG	GCC	ATG	GCG	GAG	GTG	AAG	CTG	GTG	GAG	TCT	GGG
	CGC	CGG	GTC	GGC	CGG	TAC	CGC	CTC	CAC	TTC	GAC	CAC	CTC	AGA	CCC
+1	G	G	L	V	K	P	G	G	S	L	K	L	S	C	A
91	GGA	GGC	TTA	GTG	AAG	CCT	GGA	GGG	TCC	CTG	AAA	CTC	TCC	TGT	GCA
	CCT	CCG	AAT	CAC	TTC	GGA	CCT	CCC	AGG	GAC	TTT	GAG	AGG	ACA	CGT
+1	A	S	G	F	T	F	S	S	Y	T	M	S	W	V	R
136	GCC	TCT	GGA	TTC	ACT	TTC	AGT	AGC	TAT	ACC	ATG	TCT	TGG	GTT	CGC
	CGG	AGA	CCT	AAG	TGA	AAG	TCA	TCG	ATA	TGG	TAC	AGA	ACC	CAA	GCG
+1	Q	T	P	E	K	R	L	E	W	V	A	T	I	S	S
181	CAG	ACT	CCG	GAG	AAG	AGG	CTG	GAG	TGG	GTC	GCA	ACC	ATT	AGT	AGT
	GTC	TGA	GGC	CTC	TTC	TCC	GAC	CTC	ACC	CAG	CGT	TGG	TAA	TCA	TCA
+1	G	G	S	S	T	Y	Y	P	D	S	V	K	G	R	F
226	GGN	GGT	AGT	TCC	ACC	TAC	TAT	CCA	GAC	AGT	GTG	AAG	GGC	CGA	TTC
	CCN	CCA	TCA	AGG	TGG	ATG	ATA	GGT	CTG	TCA	CAC	TTC	CCG	GCT	AAG
+1	T	I	S	R	D	N	A	K	N	T	L	Y	L	Q	M
271	ACC	ATC	TCC	AGA	GAC	AAT	GCC	AAG	AAC	ACC	CTG	TAC	CTG	CAA	ATG
	TGG	TAG	AGG	TCT	CTG	TTA	CGG	TTC	TTG	TGG	GAC	ATG	GAC	GTT	TAC
+1	S	S	L	R	S	E	D	T	A	M	Y	Y	C	T	R
316	AGC	AGT	CTG	AGG	TCT	GAG	GAC	ACA	GCC	ATG	TAT	TAC	TGT	ACA	AGA
	TCG	TCA	GAC	TCC	AGA	CTC	CTG	TGT	CGG	TAC	ATA	ATG	ACA	TGT	TCT
+1	E	G	G	G	F	T	V	N	W	Y	F	D	V	W	G
361	GAG	GGG	GGT	GGT	TTC	ACC	GTC	AAC	TGG	TAC	TTC	GAT	GTC	TGG	GGC
	CTC	CCC	CCA	CCA	AAG	TGG	CAG	TTG	ACC	ATG	AAG	CTA	CAG	ACC	CCG
Linker															
+1	A	G	T	S	V	T	V	S	S	G	G	G	G	S	G
406	GCA	GGA	ACC	TCA	GTC	ACC	GTC	TCC	TCA	GGT	GGA	GGC	GGT	TCA	GGT
	CGT	CCT	TGG	AGT	CAG	TGG	CAG	AGG	AGT	CCA	CCT	CCG	CCA	AGT	CCA
VL															
+1	G	R	A	S	G	G	G	G	S	D	I	V	L	T	Q
451	GGG	CGC	GCC	TCT	GGC	GGT	GGC	GGA	TCG	GAC	ATT	GTG	CTG	ACA	CAG
	CCC	GCG	CGG	AGA	CCG	CCA	CCG	CCT	AGC	CTG	TAA	CAC	GAC	TGT	GTC

FIG. 28-1

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+1	X	P	A	S	L	A	V	S	L	G	Q	R	A	T	I
496	TNT	CCA	GCT	TCT	TTG	GCT	GTG	TCT	CTA	GGG	CAG	AGG	GCC	ACC	ATA
	ANA	GGT	CGA	AGA	AAC	CGA	CAC	AGA	GAT	CCC	GTC	TCC	CGG	TGG	TAT
+1	S	C	R	A	S	E	S	V	D	S	Y	G	Y	N	F
541	TCN	TGC	AGA	GCC	AGT	GAA	AGT	GTT	GAT	AGT	TAT	GGC	TAT	AAT	TTT
	AGN	ACG	TCT	CGG	TCA	CTT	TCA	CAA	CTA	TCA	ATA	CCG	ATA	TTA	AAA
+1	M	H	W	Y	Q	Q	I	P	G	Q	P	P	K	L	L
586	ATG	CAC	TGG	TAT	CAG	CAG	ATA	CCA	GGA	CAG	CCA	CCC	AAA	CTC	CTC
	TAC	GTG	ACC	ATA	GTC	GTC	TAT	GGT	CCT	GTC	GGT	GGG	TTT	GAG	GAG
+1	I	Y	R	A	S	N	L	E	S	G	I	P	A	R	F
631	ATC	TAT	CGT	GCA	TCC	AAC	CTA	GAG	TCT	GGG	ATC	CCT	GCC	AGG	TTC
	TAG	ATA	GCA	CGT	AGG	TTG	GAT	CTC	AGA	CCC	TAG	GGA	CGG	TCC	AAG
+1	S	G	S	G	S	R	T	D	F	T	L	T	I	N	P
676	AGT	GGC	AGT	GGG	TCT	AGG	ACA	GAC	TTC	ACC	CTC	ACC	ATT	AAT	CCT
	TCA	CCG	TCA	CCC	AGA	TCC	TGT	CTG	AAG	TGG	GAG	TGG	TAA	TTA	GGA
+1	V	E	A	D	D	V	A	T	Y	Y	C	Q	Q	S	N
721	GTG	GAG	GCT	GAT	GAT	GTT	GCA	ACC	TAT	TAC	TGT	CAG	CAA	AGT	AAT
	CAC	CTC	CGA	CTA	CTA	CAA	CGT	TGG	ATA	ATG	ACA	GTC	GTT	TCA	TTA
+1	E	D	P	L	T	F	G	T	G	T	R	L	E	I	K
766	GAG	GAT	CCG	CTC	ACG	TTC	GGT	ACT	GGG	ACC	AGA	CTG	GAA	ATA	AAA
	CTC	CTA	GGC	GAG	TGC	AAG	CCA	TGA	CCC	TGG	TCT	GAC	CTT	TAT	TTT
	Spacer			Hinge								Helix			
+1	R	A	A	A	P	K	P	S	T	P	P	G	S	S	R
811	CGG	GCG	GCC	GCA	CCG	AAG	CCT	TCC	ACT	CCG	CCC	GGG	TCT	TCC	CGT
	GCC	CGC	CGG	CGT	GGC	TTC	GGA	AGG	TGA	GGC	GGG	CCC	AGA	AGG	GCA
+1	M	K	Q	L	E	D	K	V	E	E	L	L	S	K	N
856	ATG	AAA	CAG	CTG	GAA	GAC	AAA	GTA	GAG	GAG	CTC	CTT	AGC	AAG	AAC
	TAC	TTT	GTC	GAC	CTT	CTG	TTT	CAT	CTC	CTC	GAG	GAA	TCG	TTC	TTG
+1	Y	H	L	E	N	E	V	A	R	L	K	K	L	V	G
901	TAC	CAT	CTA	GAA	AAC	GAG	GTA	GCT	CGT	CTG	AAA	AAG	CTT	GTT	GGT
	ATG	GTA	GAT	CTT	TTG	CTC	CAT	CGA	GCA	GAC	TTT	TTC	GAA	CAA	CCA
	Spacer			His-tag											
+1	E	R	G	G	H	H	H	H	H	H	*				
946	GAA	CGT	GGT	GGT	CAC	CAT	CAC	CAT	CAC	CAT	TAA				
	CTT	GCA	CCA	CCA	GTG	GTA	GTG	GTA	GTG	GTA	ATT				

FIG. 28-2

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PelB-Leader

+1	M	K	Y	L	L	P	T	A	A	A	G	L	L	L
1	ATG	AAA	TAC	CTA	TTG	CCT	ACG	GCA	GCC	GCT	GGA	TTG	TTA	TTA
	TAC	TTT	ATG	GAT	AAC	GGA	TGC	CGT	CGG	CGA	CCT	AAC	AAT	AAT

										VH				
+1	L	A	A	Q	P	A	M	A	E	V	Q	L	Q	Q
43	CTC	GCG	GCC	CAG	CCG	GCC	ATG	GCC	GAG	GTT	CAG	CTT	CAG	CAG
	GAG	CGC	CGG	GTC	GGC	CGG	TAC	CGG	CTC	CAA	GTC	GAA	GTC	GTC

+1	S	G	P	E	L	V	K	P	G	A	S	V	K	I
85	TCT	GGA	CCT	GAG	CTG	GTG	AAG	CCC	GGG	GCC	TCA	GTG	AAG	ATT
	AGA	CCT	GGA	CTC	GAC	CAC	TTC	GGG	CCC	CGG	AGT	CAC	TTC	TAA

+1	S	C	K	A	S	G	Y	A	F	S	S	S	W	M
127	TCC	TGC	AAA	GCT	TCT	GGC	TAC	GCA	TTC	AGT	AGC	TCT	TGG	ATG
	AGG	ACG	TTT	CGA	AGA	CCG	ATG	CGT	AAG	TCA	TCG	AGA	ACC	TAC

+1	N	W	V	K	Q	R	P	G	Q	G	L	E	W	I
169	AAC	TGG	GTG	AAG	CAG	AGG	CCT	GGA	CAG	GGT	CTT	GAG	TGG	ATT
	TTG	ACC	CAC	TTC	GTC	TCC	GGA	CCT	GTC	CCA	GAA	CTC	ACC	TAA

+1	G	R	I	Y	P	G	N	G	D	T	N	Y	N	G
211	GGA	CGG	ATT	TAT	CCT	GGA	AAT	GGA	GAT	ACT	AAC	TAC	AAT	GGG
	CCT	GCC	TAA	ATA	GGA	CCT	TTA	CCT	CTA	TGA	TTG	ATG	TTA	CCC

+1	K	F	K	G	K	A	T	L	T	A	D	K	S	S
253	AAG	TTC	AAG	GGC	AAG	GCC	ACA	CTG	ACT	GCA	GAC	AAA	TCC	TCC
	TTC	AAG	TTC	CCG	TTC	CGG	TGT	GAC	TGA	CGT	CTG	TTT	AGG	AGG

+1	S	T	A	Y	M	Q	L	S	S	L	T	S	V	D
295	AGC	ACA	GCC	TAC	ATG	CAG	CTC	AGC	AGC	CTG	ACC	TCT	GTG	GAC
	TCG	TGT	CGG	ATG	TAC	GTC	GAG	TCG	TCG	GAC	TGG	AGA	CAC	CTG

+1	S	A	V	Y	F	C	A	D	G	N	V	Y	Y	Y
337	TCT	GCG	GTC	TAT	TTC	TGT	GCA	GAT	GGT	AAC	GTA	TAT	TAC	TAT
	AGA	CGC	CAG	ATA	AAG	ACA	CGT	CTA	CCA	TTG	CAT	ATA	ATG	ATA

+1	A	M	D	Y	W	G	Q	G	T	S	V	T	V	S
379	GCT	ATG	GAC	TAC	TGG	GGT	CAA	GGA	ACC	TCA	GTC	ACC	GTC	TCC
	CGA	TAC	CTG	ATG	ACC	CCA	GTT	CCT	TGG	AGT	CAG	TGG	CAG	AGG

+1	S	G	G	G	G	S	G	G	R	A	S	G	G	G
421	TCA	GGT	GGA	GGC	GGT	TCA	GGT	GGG	CGC	GCC	TCT	GGC	GGT	GGC
	AGT	CCA	CCT	CCG	CCA	AGT	CCA	CCC	GCG	CGG	AGA	CCG	CCA	CCG

+1	G	S	Q	I	V	L	T	Q	S	P	A	S	L	A
463	GGA	TCG	CAA	ATT	GTT	CTC	ACC	CAG	TCT	CCT	GCT	TCC	TTA	GCT
	CCT	AGC	GTT	TAA	CAA	GAG	TGG	GTC	AGA	GGA	CGA	AGG	AAT	CGA

FIG. 29-1

FIG. 29-2

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+1	Y	A	E	G	A	G	G	F	F	K	G	I	D	A
1009	TAT	GCC	GAA	GGT	GCG	GGC	GGC	TTT	TTT	AAA	GGT	ATA	GAT	GCC
	ATA	CGG	CTT	CCA	CGC	CCG	CCG	AAA	AAA	TTT	CCA	TAT	CTA	CGG
+1	L	P	L	T	G	Q	Y	T	H	Y	A	L	N	K
1051	TTA	CCG	CTT	ACC	GGG	CAA	TAC	ACT	CAC	TAT	GCG	CTG	AAT	AAA
	AAT	GGC	GAA	TGG	CCC	GTT	ATG	TGA	GTG	ATA	CGC	GAC	TTA	TTT
+1	K	T	G	K	P	D	Y	V	T	D	S	A	A	S
1093	AAA	ACC	GGC	AAA	CCG	GAC	TAC	GTC	ACC	GAC	TCG	GCT	GCA	TCA
	TTT	TGG	CCG	TTT	GGC	CTG	ATG	CAG	TGG	CTG	AGC	CGA	CGT	AGT
+1	A	T	A	W	S	T	G	V	K	T	Y	N	G	A
1135	GCA	ACC	GCC	TGG	TCA	ACC	GGT	GTC	AAA	ACC	TAT	AAC	GGC	GCG
	CGT	TGG	CGG	ACC	AGT	TGG	CCA	CAG	TTT	TGG	ATA	TTG	CCG	CGC
+1	L	G	V	D	I	H	E	K	D	H	P	T	I	L
1177	CTG	GGC	GTC	GAT	ATT	CAC	GAA	AAA	GAT	CAC	CCA	ACG	ATT	CTG
	GAC	CCG	CAG	CTA	TAA	GTG	CTT	TTT	CTA	GTG	GGT	TGC	TAA	GAC
+1	E	M	A	K	A	A	G	L	A	T	G	N	V	S
1219	GAA	ATG	GCA	AAA	GCC	GCA	GGT	CTG	GCG	ACC	GGT	AAC	GTT	TCT
	CTT	TAC	CGT	TTT	CGG	CGT	CCA	GAC	CGC	TGG	CCA	TTG	CAA	AGA
+1	T	A	E	L	Q	D	A	T	P	A	A	L	V	A
1261	ACC	GCA	GAG	TTG	CAG	GAT	GCC	ACG	CCC	GCT	GCG	CTG	GTG	GCA
	TGG	CGT	CTC	AAC	GTC	CTA	CGG	TGC	GGG	CGA	CGC	GAC	CAC	CGT
+1	H	V	T	S	R	K	C	Y	G	P	S	A	T	S
1303	CAT	GTG	ACC	TCG	CGC	AAA	TGC	TAC	GGT	CCG	AGC	GCG	ACC	AGT
	GTA	CAC	TGG	AGC	GCG	TTT	ACG	ATG	CCA	GGC	TCG	CGC	TGG	TCA
+1	E	K	C	P	G	N	A	L	E	K	G	G	K	G
1345	GAA	AAA	TGT	CCG	GGT	AAC	GCT	CTG	GAA	AAA	GGC	GGA	AAA	GGA
	CTT	TTT	ACA	GGC	CCA	TTG	CGA	GAC	CTT	TTT	CCG	CCT	TTT	CCT
+1	S	I	T	E	Q	L	L	N	A	R	A	D	V	T
1387	TCG	ATT	ACC	GAA	CAG	CTG	CTT	AAC	GCT	CGT	GCC	GAC	GTT	ACG
	AGC	TAA	TGG	CTT	GTC	GAC	GAA	TTG	CGA	GCA	CGG	CTG	CAA	TGC
+1	L	G	G	G	A	K	T	F	A	E	T	A	T	A
1429	CTT	GGC	GGC	GGC	GCA	AAA	ACC	TTT	GCT	GAA	ACG	GCA	ACC	GCT
	GAA	CCG	CCG	CCG	CGT	TTT	TGG	AAA	CGA	CTT	TGC	CGT	TGG	CGA
+1	G	E	W	Q	G	K	T	L	R	E	Q	A	Q	A
1471	GGT	GAA	TGG	CAG	GGA	AAA	ACG	CTG	CGT	GAA	CAG	GCA	CAG	GCG
	CCA	CTT	ACC	GTC	CCT	TTT	TGC	GAC	GCA	CTT	GTC	CGT	GTC	CGC

FIG. 29-3

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+1	R	G	Y	Q	L	V	S	D	A	A	S	L	N	S
1513	CGT	GGT	TAT	CAG	TTG	GTG	AGC	GAT	GCT	GCC	TCA	CTG	AAT	TCG
	GCA	CCA	ATA	GTC	AAC	CAC	TCG	CTA	CGA	CGG	AGT	GAC	TTA	AGC
+1	V	T	E	A	N	Q	Q	K	P	L	L	G	L	F
1555	GTG	ACG	GAA	GCG	AAT	CAG	CAA	AAA	CCC	CTG	CTT	GGC	CTG	TTT
	CAC	TGC	CTT	CGC	TTA	GTC	GTT	TTT	GGG	GAC	GAA	CCG	GAC	AAA
+1	A	D	G	N	M	P	V	R	W	L	G	P	K	A
1597	GCT	GAC	GGC	AAT	ATG	CCA	GTG	CGC	TGG	CTA	GGA	CCG	AAA	GCA
	CGA	CTG	CCG	TTA	TAC	GGT	CAC	GCG	ACC	GAT	CCT	GGC	TTT	CGT
+1	T	Y	H	G	N	I	D	K	P	A	V	T	C	T
1639	ACG	TAC	CAT	GGC	AAT	ATC	GAT	AAG	CCC	GCA	GTC	ACC	TGT	ACG
	TGC	ATG	GTA	CCG	TTA	TAG	CTA	TTC	GGG	CGT	CAG	TGG	ACA	TGC
+1	P	N	P	Q	R	N	D	S	V	P	T	L	A	Q
1681	CCA	AAT	CCG	CAA	CGT	AAT	GAC	AGT	GTA	CCA	ACC	CTG	GCG	CAG
	GGT	TTA	GGC	GTT	GCA	TTA	CTG	TCA	CAT	GGT	TGG	GAC	CGC	GTC
+1	M	T	D	K	A	I	E	L	L	S	K	N	E	K
1723	ATG	ACC	GAC	AAA	GCC	ATT	GAA	TTG	TTG	AGT	AAA	AAT	GAG	AAA
	TAC	TGG	CTG	TTT	CGG	TAA	CTT	AAC	AAC	TCA	TTT	TTA	CTC	TTT
+1	G	F	F	L	Q	V	E	G	A	S	I	D	K	Q
1765	GGC	TTT	TTC	CTG	CAA	GTT	GAA	GGT	GCG	TCA	ATC	GAT	AAA	CAG
	CCG	AAA	AAG	GAC	GTT	CAA	CTT	CCA	CGC	AGT	TAG	CTA	TTT	GTC
+1	D	H	A	A	N	P	C	G	Q	I	G	E	T	V
1807	GAT	CAT	GCT	GCG	AAT	CCT	TGT	GGG	CAA	ATT	GGC	GAG	ACG	GTC
	CTA	GTA	CGA	CGC	TTA	GGA	ACA	CCC	GTT	TAA	CCG	CTC	TGC	CAG
+1	D	L	D	E	A	V	Q	R	A	L	E	F	A	K
1849	GAT	CTC	GAT	GAA	GCC	GTA	CAA	CGG	GCG	CTG	GAA	TTC	GCT	AAA
	CTA	GAG	CTA	CTT	CGG	CAT	GTT	GCC	CGC	GAC	CTT	AAG	CGA	TTT
+1	K	E	G	N	T	L	V	I	V	T	A	D	H	A
1891	AAG	GAG	GGT	AAC	ACG	CTG	GTC	ATA	GTC	ACC	GCT	GAT	CAC	GCC
	TTC	CTC	CCA	TTG	TGC	GAC	CAG	TAT	CAG	TGG	CGA	CTA	GTG	CGG
+1	H	A	S	Q	I	V	A	P	D	T	K	A	P	G
1933	CAC	GCC	AGC	CAG	ATT	GTT	GCG	CCG	GAT	ACC	AAA	GCT	CCG	GGC
	GTG	CGG	TCG	GTC	TAA	CAA	CGC	GGC	CTA	TGG	TTT	CGA	GGC	CCG
+1	L	T	Q	A	L	N	T	K	D	G	A	V	M	V
1975	CTC	ACC	CAG	GCG	CTA	AAT	ACC	AAA	GAT	GGC	GCA	GTG	ATG	GTG
	GAG	TGG	GTC	CGC	GAT	TTA	TGG	TTT	CTA	CCG	CGT	CAC	TAC	CAC

FIG. 29-4

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+1	M	S	Y	G	N	S	E	E	D	S	Q	E	H	T
2017	ATG	AGT	TAC	GGG	AAC	TCC	GAA	GAG	GAT	TCA	CAA	GAA	CAT	ACC
	TAC	TCA	ATG	CCC	TTG	AGG	CTT	CTC	CTA	AGT	GTT	CTT	GTA	TGG
+1	G	S	Q	L	R	I	A	A	Y	G	P	H	A	A
2059	GGC	AGT	CAG	TTG	CGT	ATT	GCG	GCG	TAT	GGC	CCG	CAT	GCC	GCC
	CCG	TCA	GTC	AAC	GCA	TAA	CGC	CGC	ATA	CCG	GGC	GTA	CGG	CGG
+1	N	V	V	G	L	T	D	Q	T	D	L	F	Y	T
2101	AAT	GTT	GTT	GGA	CTG	ACC	GAC	CAG	ACC	GAT	CTC	TTC	TAC	ACC
	TTA	CAA	CAA	CCT	GAC	TGG	CTG	GTC	TGG	CTA	GAG	AAG	ATG	TGG
+1	M	K	A	A	L	G	D	I	A	His tag				
2143	ATG	AAA	GCC	GCT	CTG	GGG	GAT	ATC	GCA	H	H	H	H	H
	TAC	TTT	CGG	CGA	GAC	CCC	CTA	TAG	CGT	CAC	CAT	CAC	CAT	CAC
										GTG	GTA	GTG	GTA	GTG
+1	H	*												
2185	CAT	TAA												
	GTA	ATT												

FIG. 29-5

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								VL									
+1	S	G	G	G	G	S		Q	I	V	L	T	Q	S	P	A	
451	TCT	GGC	GGT	GGC	GGA	TCT	CAA	ATT	GTT	CTC	ACC	CAG	TCT	CCT	GCT		
	AGA	CCG	CCA	CCG	CCT	AGC	GTT	TAA	CAA	GAG	TGG	GTC	AGA	GGA	CGA		
+1	S	L	A	V	S	L	G	Q	R	A	T	I	S	C	R		
496	TCC	TTA	GCT	GTA	TCT	CTG	GGG	CAG	AGG	GCC	ACC	ATC	TCA	TGC	AGG		
	AGG	AAT	CGA	CAT	AGA	GAC	CCC	GTC	TCC	CGG	TGG	TAG	AGT	ACG	TCC		
+1	A	S	K	S	V	S	T	S	G	Y	S	Y	M	H	W		
541	GCC	AGC	AAA	AGT	GTC	AGT	ACA	TCT	GGC	TAT	AGT	TAT	ATG	CAC	TGG		
	CGG	TCG	TTT	TCA	CAG	TCA	TGT	AGA	CCG	ATA	TCA	ATA	TAC	GTG	ACC		
+1	Y	Q	Q	K	P	G	Q	P	P	K	L	L	I	Y	L		
586	TAC	CAA	CAG	AAA	CCA	GGA	CAG	CCA	CCC	AAA	CTC	CTC	ATC	TAT	CTT		
	ATG	GTT	GTC	TTT	GGT	CCT	GTC	GGT	GGG	TTT	GAG	GAG	TAG	ATA	GAA		
+1	A	S	N	L	E	S	G	V	P	A	R	F	S	G	S		
631	GCA	TCC	AAC	CTA	GAA	TCT	GGG	GTC	CCT	GCC	AGG	TTC	AGT	GGC	AGT		
	CGT	AGG	TTG	GAT	CTT	AGA	CCC	CAG	GGA	CGG	TCC	AAG	TCA	CCG	TCA		
+1	G	S	G	T	D	F	T	L	N	I	H	P	V	E	E		
676	GGG	TCT	GGG	ACA	GAC	TTC	ACC	CTC	AAC	ATC	CAT	CCT	GTG	GAG	GAG		
	CCC	AGA	CCC	TGT	CTG	AAG	TGG	GAG	TTG	TAG	GTA	GGA	CAC	CTC	CTC		
+1	E	D	A	A	T	Y	Y	C	Q	H	S	R	E	L	P		
721	GAG	GAT	GCT	GCA	ACC	TAT	TAC	TGT	CAG	CAC	AGT	AGG	GAG	CTT	CCT		
	CTC	CTA	CGA	CGT	TGG	ATA	ATG	ACA	GTC	GTG	TCA	TCC	CTC	GAA	GGA		
+1	R	T	F	G	G	G	T	K	L	E	I	K	R	Spacer			
766	CGG	ACG	TTC	GGT	GGA	GGC	ACC	AAG	CTG	GAA	ATC	AAA	CGG	GCG	GCC		
	GCC	TGC	AAG	CCA	CCT	CCG	TGG	TTC	GAC	CTT	TAG	TTT	GCC	CGC	CGG		
+1	A	Hinge										Helix					
811	GCA	P	K	P	S	T	P	P	G	S	S	R	M	K	Q		
	CGT	CCG	AAG	CCT	TCC	ACT	CCG	CCC	GGG	TCT	TCC	CGT	ATG	AAA	CAG		
		GGC	TTC	GGA	AGG	TGA	GGC	GGG	CCC	AGA	AGG	GCA	TAC	TTT	GTC		
+1	L	E	D	K	V	E	E	L	L	S	K	N	Y	H	L		
856	CTG	GAA	GAC	AAA	GTA	GAG	GAG	CTC	CTT	AGC	AAG	AAC	TAC	CAT	CTA		
	GAC	CTT	CTG	TTT	CAT	CTC	CTC	GAG	GAA	TCG	TTC	TTG	ATG	GTA	GAT		
+1	E	N	E	V	A	R	L	K	K	L	V	G	E	R	G		
901	GAA	AAC	GAG	GTA	GCT	CGT	CTG	AAA	AAG	CTT	GTT	GGT	GAA	CGT	GGT		
	CTT	TTG	CTC	CAT	CGA	GCA	GAC	TTT	TTC	GAA	CAA	CCA	CTT	GCA	CCA		

FIG. 30-2

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Spacer		His-tag						
+1	G	H	H	H	H	H	H	*
946	GGT	CAC	CAT	CAC	CAT	CAC	CAT	TAA
	CCA	GTG	GTA	GTG	GTA	GTG	GTA	ATT

FIG. 30-3

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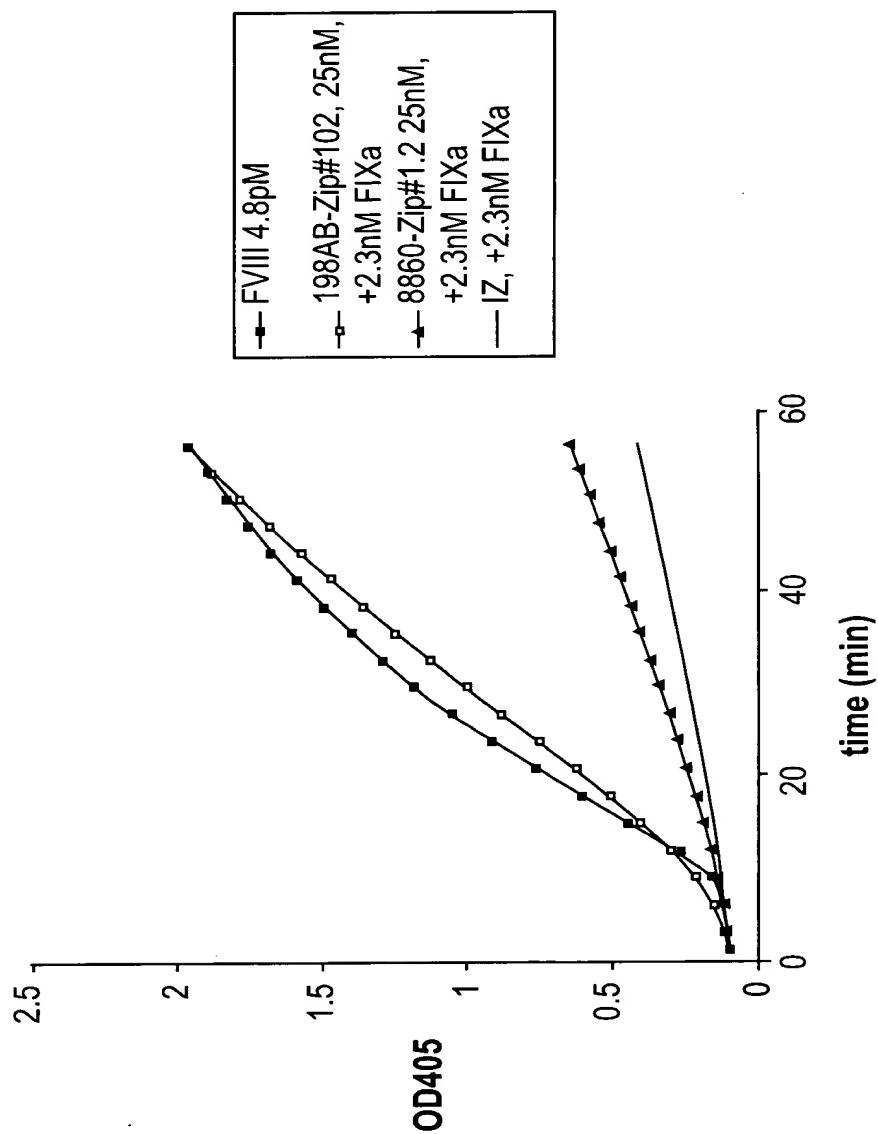


FIG. 31



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HindIII

2206 CAG GAA ACA GCT ATG ACC ATG ATT ACG CCA ~~ACC~~ ~~ATC~~ TTC CAT GAA AAT
GTC CTT TGT CGA TAC TGG TAC TAA TGC GGT TCG AAG GTA CTT TTA

PelB-Leader

2251 TCT ATT TCA AGG AGA CAG TCA TAA TGA AAT ACC TAT TGC CTA CGG
AGA TAA AGT TCC TCT GTC AGT ATT ACT TTA TGG ATA ACG GAT GCC

A A A G L L L L A A Q P A M A

SfiI

2296 CAG CCG CTG GAT TGT TAT TAC TCG CGG CCG AGC CCG CCA TGG CCC
GTC GGC GAC CTA ACA ATA ATG AGC GCC GGG TCG GCC GGT ACC GGG

Polylinker

Q V Q L Q A R L Q V D L E I K

AsCI

2341 AGG TGC AGC TGC AGG ~~GG~~ ~~CGC~~ ~~GCC~~ TGC AGG TCG ACC TCG AGA TCA AAC
TCC ACG TCG ACG TCC GCG CGG ACG TCC AGC TGG AGC TCT AGT TTG

Spacer	Myc-tag
--------	---------

[illegible]

2386 GGG CGG CCG CAG AAC AAA AAC TCA TCT CAG AAG AGG ATC TGA ATG
CCC GCC GGC GTC TTG TTT TTG AGT AGA GTC TTC TCC TAG ACT TAC

Spacer His tag

G	A	A	H	H	H	H	H	H	*	*
---	---	---	---	---	---	---	---	---	---	---

EcoRI

2431 GGG CGG CAC ATC ACC ATC ACC ATC ACT AAT AAG AAT TCA CTG GCC
CCC GCC GTG TAG TGG TAG TGG TAG TGA TTA TTC TTA AGT GAC CGG

FIG. 33

PelB-leader

Leader

FIG. 34-1

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										VK					
+1	G	R	A	S	G	G	G	G	S	D	I	V	L	T	Q
451	GGG	CGC	GCC	TCT	GGC	GGT	GGC	GGA	TCG	GAC	ATT	GTG	CTG	ACA	CAG
	CCC	GCG	CGG	AGA	CCG	CCA	CCG	CCT	AGC	CTG	TAA	CAC	GAC	TGT	GTC
+1	S	P	A	S	L	A	V	S	L	G	Q	R	A	T	I
496	TCT	CCA	GCT	TCT	TTG	GCT	GTG	TCT	CTA	GGG	CAG	AGG	GCC	ACC	ATA
	AGA	GGT	CGA	AGA	AAC	CGA	CAC	AGA	GAT	CCC	GTC	TCC	CGG	TGG	TAT
+1	S	C	R	A	S	E	S	V	D	S	Y	G	Y	N	F
541	TCC	TGC	AGA	GCC	AGT	GAA	AGT	GTT	GAT	AGT	TAT	GGC	TAT	AAT	TTT
	AGG	ACG	TCT	CGG	TCA	CTT	TCA	CAA	CTA	TCA	ATA	CCG	ATA	TTA	AAA
+1	M	H	W	Y	Q	Q	I	P	G	Q	P	P	K	L	L
586	ATG	CAC	TGG	TAT	CAG	CAG	ATA	CCA	GGA	CAG	CCA	CCC	AAA	CTC	CTC
	TAC	GTG	ACC	ATA	GTC	GTC	TAT	GGT	CCT	GTC	GGT	GGG	TTT	GAG	GAG
+1	I	Y	R	A	S	N	L	E	S	G	I	P	A	R	F
631	ATC	TAT	CGT	GCA	TCC	AAC	CTA	GAG	TCT	GGG	ATC	CCT	GCC	AGG	TTC
	TAG	ATA	GCA	CGT	AGG	TTG	GAT	CTC	AGA	CCC	TAG	GGA	CGG	TCC	AAG
+1	S	G	S	G	S	R	T	D	F	T	L	T	I	N	P
676	AGT	GGC	AGT	GGG	TCT	AGG	ACA	GAC	TTC	ACC	CTC	ACC	ATT	AAT	CCT
	TCA	CCG	TCA	CCC	AGA	TCC	TGT	CTG	AAG	TGG	GAG	TGG	TAA	TTA	GGA
+1	V	E	A	D	D	V	A	T	Y	Y	C	Q	Q	S	N
721	GTG	GAG	GCT	GAT	GAT	GTT	GCA	ACC	TAT	TAC	TGT	CAG	CAA	AGT	AAT
	CAC	CTC	CGA	CTA	CTA	CAA	CGT	TGG	ATA	ATG	ACA	GTC	GTT	TCA	TTA
+1	E	D	P	L	T	F	G	T	G	T	R	L	E	I	K
766	GAG	GAT	CCG	CTC	ACG	TTC	GGT	ACT	GGG	ACC	AGA	CTG	GAA	ATA	AAA
	CTC	CTA	GGC	GAG	TGC	AAG	CCA	TGA	CCC	TGG	TCT	GAC	CTT	TAT	TTT
		Spacer				Myc-tag									
+1	R	A	A	A	E	Q	K	L	I	S	E	E	D	L	N
811	CGG	GCG	GCC	GCA	GAA	CAA	AAA	CTC	ATC	TCA	GAA	GAG	GAT	CTG	AAT
	GCC	CGC	CGG	CGT	CTT	GTT	TTT	GAG	TAG	AGT	CTT	CTC	CTA	GAC	TTA
		Spacer				His tag									
+1	G	A	A	H	H	H	H	H	H	*	*				
856	GGG	GCG	GCA	CAT	CAC	CAT	CAC	CAT	CAC	TAA	TAA				
	CCC	CGC	CGT	GTA	GTG	GTA	GTG	GTA	GTG	ATT	ATT				

FIG. 34-2

FIG. 35-1

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+1 S L A V S L G Q R A T I S C R
 496 TCC TTA GCT GTA TCT CTG GGG CAG AGG GCC ACC ATC TCA TGC AGG
 AGG AAT CGA CAT AGA GAC CCC GTC TCC CGG TGG TAG AGT ACG TCC

+1 A S K S V S T S G Y S Y M H W
 541 GCC AGC AAA AGT GTC AGT ACA TCT GGC TAT AGT TAT ATG CAC TGG
 CGG TCG TTT TCA CAG TCA TGT AGA CCG ATA TCA ATA TAC GTG ACC

+1 Y Q Q K P G Q P P K L L I Y L
 586 TAC CAA CAG AAA CCA GGA CAG CCA CCC AAA CTC CTC ATC TAT CTT
 ATG GTT GTC TTT GGT CCT GTC GGT GGG TTT GAG GAG TAG ATA GAA

+1 A S N L E S G V P A R F S G S
 631 GCA TCC AAC CTA GAA TCT GGG GTC CCT GCC AGG TTC AGT GGC AGT
 CGT AGG TTG GAT CTT AGA CCC CAG GGA CGG TCC AAG TCA CCG TCA

+1 G S G T D F T L N I H P V E E
 676 GGG TCT GGG ACA GAC TTC ACC CTC AAC ATC CAT CCT GTG GAG GAG
 CCC AGA CCC TGT CTG AAG TGG GAG TTG TAG GTA GGA CAC CTC CTC

+1 E D A A T Y Y C Q H S R E L P
 721 GAG GAT GCT GCA ACC TAT TAC TGT CAG CAC AGT AGG GAG CTT CCT
 CTC CTA CGA CGT TGG ATA ATG ACA GTC GTG TCA TCC CTC GAA GGA

	+1	R	T	F	G	G	G	T	K	L	E	I	K	R		Spacer
766		CGG	ACG	TTC	GGT	GGA	GGC	ACC	AAG	CTG	GAA	ATC	AAA	CGG		A A
		GCC	TGC	AAG	CCA	CCT	CCG	TGG	TTC	GAC	CTT	TAG	TTT	GCC		GGG GCC
																CGC CGG

	+1	A		E	Q	K	L	I	S	E	E	D	L	N	G		Spacer
811		GCA		GAA	CAA	AAA	CTC	ATC	TCA	GAA	GAG	GAT	CTG	AAT	GGG		A A
		CGT		CTT	GTT	TTT	GAG	TAG	AGT	CTT	CTC	CTA	GAC	TTA	CCC		GCG GCA
																	CGC CGT

His tag
 +1 H H H H H H *
 856 CAT CAC CAT CAC CAT CAC TAA
 GTA GTG GTA GTG GTA GTG ATT

FIG. 35-2

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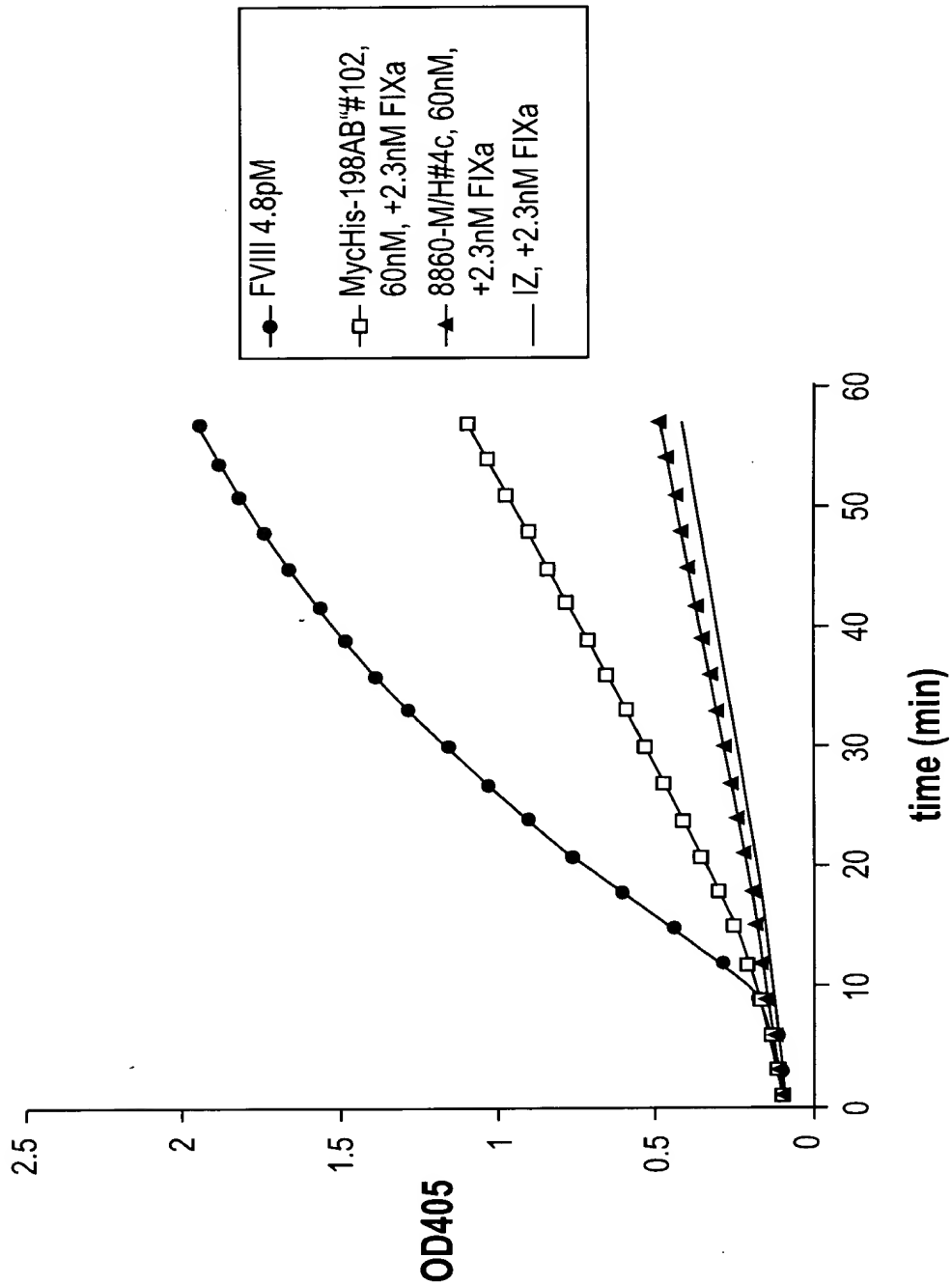


FIG. 36